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(54) Title: SYSTEM AND METHOD FOR LONG TERM CARE INSURANCE ADMINISTRATION

(57) Abstract:

TITLE: SYSTEM AND METHOD FOR LONG TERM CARE INSURANCE ADMINISTRATION

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention generally relates to computer software. More particularly, the present invention relates to insurance administration software.

2. Description of the Related Art

The long term care (LTC) insurance business is designed to protect consumers against the cost of long-term nursing home care, home healthcare (e.g., skilled nursing care, home health aides, homemaker assistance), respite care (care provided by a medical professional as a temporary substitute for a family member who is providing in-home care on a daily basis), hospice care (care provided to help and support an individual who is terminally ill), and other health or disability-related services. As used herein, "long term care (LTC)" includes the medical or healthcare services discussed above, and an "LTC insurance organization" includes any organization, such as an insurance carrier, that provides or processes insurance for such services. For many consumers, the costs for LTC services will become a significant burden if they do not have private LTC insurance. As consumers become increasingly aware of the high costs of such services, the demand for LTC insurance is increasing.

There are different levels of care which may be required by a consumer: skilled, intermediate, or custodial. As used herein, "skilled care" is care provided by skilled medical personnel (e.g., doctors, registered nurses, professional therapists). As used herein, "intermediate care" is care that is less specialized than skilled care and is delivered by trained personnel under the orders of a doctor and supervision of registered nurses. This type of care is often needed for a long period of time. As used herein, "custodial care" is care that focuses on the activities of normal daily living (ADL) such as bathing, eating, dressing, and other routine activities. It is usually provided by non-medical personnel. It may also be referred to as personal care.

As used herein, a "disability" is the inability to perform, or to perform without assistance, an Activity of Daily Living (ADL) or an Instrumental Activity of Daily Living (IADL). ADLs may include eating, getting in and out of bed, getting around inside, dressing, bathing, and using the toilet. IADLs may include the ability to do heavy housework, laundry, meal preparation, grocery shopping, getting around outside, getting to places outside of walking distance, money management, using the telephone, and taking medications.

As the market for LTC insurance continues to gain momentum, the need for efficient administration of LTC claims and policies is becoming more critical. Computer-based insurance administration systems have been used by LTC insurance carriers for the processing of LTC insurance claims and other LTC transactions. However, such systems have not focused on LTC as their primary line of business and, as such, have not been customized to meet the particular needs of the LTC field. Therefore, systems and method for providing LTC-specific solutions for benefits, products, and provider networks are desired.

Furthermore, current approaches tend to require the intervention of a skilled programmer to customize an existing insurance administration system or create a new system to handle the evolving needs of the LTC insurance field. The expense and delay involved in the process of customizing a computer-based insurance administration system may be excessive. Therefore, more efficient and flexible methods for developing customized insurance administration systems, especially in the LTC field, are desired.

For at least the foregoing reasons, there is a need for an improved LTC insurance administration system which addresses the problems discussed above.

SUMMARY OF THE INVENTION

Various embodiments of a long term care (LTC) insurance administration system may be implemented using a typical computer system and optionally a distributed computer environment. In various embodiments, the LTC insurance administration system may be used by an LTC insurance organization for administration and processing of LTC insurance products and policies. For example, the LTC insurance administration system may be used to process applications, administer claims, initiate and modify coverage, perform automated billing, and perform other appropriate tasks.

In one embodiment of the LTC insurance administration system, an LTC benefit may be defined in terms of four "atomic" elements: restrictions of coverage, authorized medical services, authorized service providers, and authorized settings. The resulting definition may then be used, for example, in the processing of LTC policies and claims by the insurance organization. In one embodiment, the LTC benefit may be implemented as a reusable software component. Examples of LTC benefits include an LTC Facility Benefit, Bed Reservation Benefit, and Alternate Plan of Care Benefit.

Any restrictions of coverage, or limits, on behalf of a long term care insurance organization may be specified by the user. For example, if the insured enters a nursing home for a trauma-related cause, it may be the case that another insurer other than the LTC insurance organization is the primary insurer. In this case, the restrictions of coverage associated with this LTC benefit may include a restriction of coverage if another insurer is a primary insurer. Limits may generally be classified as either qualification limits or benefit limits. A qualification limit must be satisfied before benefits can be paid. A benefit limit, once satisfied, may no longer be paid for the period on which the limit is defined.

One or more authorized medical services for which the LTC insurance organization will pay may be specified by the user. These authorized services may include industry-standard codes such as HCPCS, Revenue, or CPT codes, as well as user-defined codes. These services may be recognized during claim processing when bills are submitted using the service codes.

One or more authorized service providers whom the LTC insurance organization will pay may be specified by the user. This specification may include provider types which include generic classifications for providers that the insurer may permit to render services. These classifications may coincide with state regulatory terms for providers. Examples of providers may include a physical therapist, a skilled nurse, an institutional care provider, etc. Additional information concerning an authorized service provider may also be specified. For example, it may be specified whether one of the authorized service providers is authorized to bill a governmental healthcare program such as Medicare and Medicaid.

One or more authorized settings in which the medical services are performed may be specified by the user. This specification may include facility types which include generic classifications defined by the insurer for the facilities in which the insurer permits providers to render services. As with providers, these classifications may coincide with state regulatory terms for facilities. Examples may include a skilled nursing facility, a custodial care facility, an adult day care center, etc.

The LTC benefit may be stored in a memory coupled to the computer system, wherein the LTC benefit includes the specified restrictions of coverage, authorized medical services, authorized service providers, and

authorized settings. An insured of the LTC insurance organization may be reimbursed in accordance with the LTC benefit. In other words, the insured may be reimbursed for expenses incurred in receiving one or more of the authorized long term care services from one or more of the authorized service providers in one or more of the authorized settings, subject to the restrictions of coverage.

A benefit component hierarchy may be used to represent LTC benefits within the LTC insurance administration system. Components may be used to model benefits, diagnosis codes, limits, service groups, services, provider types, and facility types. In one embodiment, LTC benefit components and other components may be reused across multiple LTC products. This capability enhances the flexibility of the LTC insurance administration system and the ease of creating new LTC products.

In one embodiment, the LTC administration system may permit a user to configure or customize the LTC components by defining new benefit components and/or extending existing benefit components. A collection of reusable software components for LTC, including LTC benefit components, may be provided for the LTC insurance administration system. The LTC reusable software components may include, for example, covered conditions, reimbursable services, types of providers certified to deliver services, permissible settings for providing services, and various other user-definable LTC insurance components. A user may be presented with the collection of LTC software components by the LTC insurance administration system. These LTC software components may include both pre-defined components that are delivered to the user with the LTC insurance administration system and also user-defined components that have been stored and added to a library of LTC software components.

The user may be prompted or permitted to select one of the LTC software components. The user may be prompted or permitted to specify parameters relating to the selected LTC software component. For example, the parameters may relate to the details of a particular benefit component, diagnosis code component, service group component, service component, provider type component, facility type component, or limit component. The parameters may also specify the associations between these LTC components. For example, an existing provider type component may be associated with multiple benefit components, or an existing benefit component may be associated with a new provider type component. In this way, the user may be permitted to extend one or more of the collection of reusable software components. In one embodiment, the user may define one or more new reusable software components, such as by creating a new component by using an existing component as a template. The selected reusable software component and the user-specified parameters relating to the selected reusable software component may be stored in a memory coupled to the computer system. In one embodiment, the above steps may be repeated one or more times until the user has selected, configured, and stored all of the LTC insurance components so desired.

As discussed above, one or more LTC benefit components may be defined by the user by specifying parameters of reusable software components for LTC. The LTC benefit components, once defined, may then be combined into one or more LTC product offerings. In one embodiment, combining the LTC benefit components into one or more LTC products may include linking or associating the corresponding graphical representations of the benefit components through appropriate GUI-based commands. Various combinations or subsets of the LTC components may be combined into a plurality of LTC benefits, and various combinations or subsets of the LTC benefits may be combined into a plurality of LTC products.

In one embodiment, the LTC administration system may permit a user to define and/or configure healthcare and LTC provider networks for a particular LTC insurance organization. As used herein, a provider network may include one or more LTC or healthcare providers whom the LTC insurance organization is willing to

pay for services. A healthcare provider is typically an individual or organization that is qualified, trained, and/or licensed to administer particular healthcare services to an insured party. A particular healthcare provider network which is supported by a long term care insurance organization may be specified by the user. In one embodiment, this step may include specifying one or more of a network name, network administrator, effective date, and/or termination date. Initially, the provider network may include no providers until the first specific provider is added. One or more types of healthcare providers for LTC may be specified by the user. In one embodiment, provider types, facility types, and/or license types may be specified. Specific healthcare providers for long term care may be identified by the user. Each of the specific healthcare providers may be associated with one or more of the healthcare provider types, facility types, and/or license types. Each of the specific providers may be associated with the provider network.

The LTC provider network and/or specific provider may be further configured by the user. For example, a negotiated rate for healthcare services between the LTC insurance organization and one of the specific healthcare providers may be specified. Additionally, a relationship between one of the specific healthcare providers and the LTC insurance organization may be specified. The relationship may be, for example, a preferred provider relationship or an exclusive provider relationship. The insured party may be reimbursed, or the authorized provider may be paid, for authorized services performed by the provider in the healthcare provider network. As a result of including the provider in the network, the services may qualify for reduced, in-network co-insurance rates.

In one embodiment, the various LTC components discussed above may be created and maintained within a multi-tier architecture. A meta level may include a set of available options for the LTC administration system for a particular LTC insurance organization. The set of available options may include a set of available functions and a set of available values for each available function. For example, the meta level may include a plurality of billing rates (annual, weekly, monthly, etc.) and a plurality of billing methods (direct mail, direct debit, credit card, etc) which may potentially be used by the LTC insurance organization in the LTC administration system. Default values may be specified at the meta level.

A description level may include product-level details for one or more insurance products offered by the LTC insurance organization. The product-level details may include a selection of the available options defined at the meta level. For example, a particular product may permit only direct mail and direct debit billing methods, but not a credit card billing method, out of the potential billing methods specified at the meta level. A particular product may inherit or override values from the meta level.

A production level may include policy-level details for one or more insurance policies offered under one or more of the insurance products defined at the description level. A policy is a particular contract between the LTC insurance organization and an insured under a particular product. A particular policy may inherit or override values from the description level. For example, if one billing method were specified as a default at the meta level or description level, then that default could be overridden at the production level and another billing method specified.

An activity level may include transaction-level details for one or more insurance transactions occurring under one or more of the insurance policies defined at the production level. A particular transaction may inherit or override values from the production level. For example, the preferred or default billing method for a particular policy could be overridden for a period of time if the insured were to be on vacation.

In one embodiment, the meta level may include one or more default values for one or more of the available options. The product-level details at the description level may then inherit or override the one or more default values for the available options defined at the meta level. The policy-level details at the production level may then

inherit or override the one or more default values from the product-level details defined at the description level. The transaction-level details at the activity level may then inherit or override the one or more default values from the policy-level details defined at the production level.

Defining the levels may include implementing software objects at each level in accordance with object-oriented programming techniques. The objects at a lower level may be implemented as subclasses of objects at a higher level. Therefore, the objects at a lower level may inherit attributes, methods, and/or values from the objects at a higher level. The objects may also override these inherited characteristics, such as default values. The LTC administration system may be operated by executing program instructions provided by the meta-level objects, description-level objects, production-level objects, and/or activity-level objects on a processor coupled to the computer system.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is an illustration of a typical computer system which is suitable for implementing various embodiments;

Figure 2 is a network diagram of an illustrative distributed computing environment which is suitable for implementing various embodiments;

Figure 3 is a flowchart illustrating the definition by a user of an LTC benefit according to one embodiment;

Figure 4 illustrates an LTC benefit component hierarchy according to one embodiment;

Figure 5 is a flowchart illustrating configuration by a user of long term care benefit components according to one embodiment;

Figure 6 is a flowchart illustrating a method for defining an LTC product offering according to one embodiment;

Figure 7 is a flowchart illustrating a method for defining an LTC provider network according to one embodiment;

Figure 8 is a block diagram illustrating a four-tier architecture for an LTC administration system according to one embodiment; and

Figure 9 is a flowchart illustrating a method for developing an LTC administration system using the four-tier architecture according to one embodiment.

While the invention is susceptible to various modifications and alternative forms, specific embodiments thereof are shown by way of example in the drawings and will herein be described in detail. It should be understood, however, that the drawings and detailed description thereto are not intended to limit the invention to the particular form disclosed, but on the contrary, the intention is to cover all modifications, equivalents and alternatives falling within the spirit and scope of the present invention as defined by the appended claims.

DETAILED DESCRIPTION OF SEVERAL EMBODIMENTS

Figure 1: A Typical Computer System

Figure 1 illustrates a typical computer system 150 which is suitable for implementing various embodiments of the system and method for long term care insurance administration. Each computer system 150 typically includes components such as a CPU 152 with an associated memory medium, represented by floppy disks 160. The memory medium may store program instructions for computer programs, wherein the program

instructions are executable by the CPU 152. The computer system 150 may further include a display device such as a monitor 154, an alphanumeric input device such as a keyboard 156, and a directional input device such as a mouse 158. The computer system 150 is operable to execute the computer programs to implement improved long term care insurance administration systems and methods as described herein.

The computer system 150 preferably includes a memory medium on which computer programs according to various embodiments may be stored. The term "memory medium may include an installation medium, e.g., a CD-ROM, or floppy disks 160, a computer system memory such as DRAM, SRAM, EDO RAM, Rambus RAM, etc., or a non-volatile memory such as a magnetic media, e.g., a hard drive, or optical storage. The memory medium may include other types of memory as well, or combinations thereof. In addition, the memory medium may be located in a first computer in which the programs are executed, or may be located in a second different computer which connects to the first computer over a network. In the latter instance, the second computer provides the program instructions to the first computer for execution. Also, the computer system 150 may take various forms, including a personal computer system, mainframe computer system, workstation, network appliance, Internet appliance, personal digital assistant (PDA), television system or other device. In general, the term "computer system" can be broadly defined to encompass any device having a processor which executes instructions from a memory medium.

The memory medium preferably stores a software program or programs for event-triggered transaction processing as described herein. The software program(s) may be implemented in any of various ways, including procedure-based techniques, component-based techniques, and/or object-oriented techniques, among others. For example, the software program may be implemented using ActiveX controls, C++ objects, JavaBeans, Microsoft Foundation Classes (MFC), or other technologies or methodologies, as desired. A CPU, such as the host CPU 152, executing code and data from the memory medium includes a means for creating and executing the software program or programs according to the methods and/or block diagrams described below.

In one embodiment, the computer programs executable by the computer system 150 may be implemented in an object-oriented programming language. In an object-oriented programming language, data and related methods can be grouped together or encapsulated to form an entity known as an object. All objects in an object-oriented programming system belong to a class, which can be thought of as a category of like objects which describes the characteristics of those objects. Each object is created as an instance of the class by a program. The objects may therefore be said to have been instantiated from the class. The class sets out variables and methods for objects which belong to that class. The definition of the class does not itself create any objects. The class may define initial values for its variables, and it normally defines the methods associated with the class (i.e., includes the program code which is executed when a method is invoked.) The class may thereby provide all of the program code which will be used by objects in the class, hence maximizing re-use of code which is shared by objects in the class.

The computer system for long term care insurance administration as discussed herein may include a typical computer system 150 as illustrated in Figure 1.

Figure 2: A Distributed Computing Environment

Figure 2 illustrates a distributed or enterprise computing environment according to one embodiment. A distributed computer system or enterprise 100 includes a plurality of computer systems which are interconnected through one or more networks. Although one particular embodiment is shown in Figure 2, the distributed computer system 100 may include a variety of heterogeneous computer systems and networks which are interconnected in a variety of ways and which run a variety of software applications and/or operating system software.

One or more local area networks (LANs) 104 may be included in the enterprise 100. A LAN 104 is a network that spans a relatively small area. Typically, a LAN 104 is confined to a single building or group of buildings. Each node (i.e., individual computer system or device) on a LAN 104 preferably has its own CPU with which it executes programs, and each node is also able to access data and devices anywhere on the LAN 104. The LAN 104 thus allows many users to share devices (e.g., printers) as well as data stored on file servers. The LAN 104 may be characterized by any of a variety of types of topology (i.e., the geometric arrangement of devices on the network), of protocols (i.e., the rules and encoding specifications for sending data, and whether the network uses a peer-to-peer or client/server architecture), and of media (e.g., twisted-pair wire, coaxial cables, fiber optic cables, radio waves). As illustrated in Figure 2, the distributed computer system 100 may include one LAN 104. However, in alternate configurations the distributed computer system 100 may include a plurality of LANs 104 which are coupled to one another through a wide area network (WAN) 102. A WAN 102 is a network that spans a relatively large geographical area.

Each LAN 104 includes a plurality of interconnected computer systems and optionally one or more other devices: for example, one or more workstations 110a, one or more personal computers 112a, one or more laptop or notebook computer systems 114, one or more server computer systems 116, and one or more network printers 118. As illustrated in Figure 2, an example LAN 104 may include one of each of computer systems 110a, 112a, 114, and 116, and one printer 118. The LAN 104 may be coupled to other computer systems and/or other devices and/or other LANs 104 through a WAN 102.

One or more mainframe computer systems 120 may be coupled to the distributed computer system 100. As shown in Figure 2, the mainframe 120 may be coupled to the distributed computer system 100 through the WAN 102, but alternatively one or more mainframes 120 may be coupled to the distributed computer system 100 through one or more LANs 104. As shown, the mainframe 120 may be coupled to a storage device or file server 124 and mainframe terminals 122a, 122b, and 122c. The mainframe terminals 122a, 122b, and 122c may access data stored in the storage device or file server 124 coupled to or included in the mainframe computer system 120.

The distributed computer system 100 may also include one or more computer systems which are connected to the distributed computer system 100 through the WAN 102: as illustrated, a workstation 110b and a personal computer 112b. In other words, the enterprise 100 may optionally include one or more computer systems which are not coupled to the distributed computer system 100 through a LAN 104. For example, the distributed computer system 100 may include computer systems which are geographically remote and connected to the distributed computer system 100 through the Internet.

Various embodiments of a long term care (LTC) insurance administration system may be implemented using a typical computer system as shown in Figure 1 and optionally a distributed computer environment as shown in Figure 2. In various embodiments, the LTC insurance administration system may be used by an LTC insurance organization for administration and processing of LTC insurance products and policies. For example, the LTC insurance administration system may be used to process applications, administer claims, initiate and modify coverage, perform automated billing, and perform other appropriate tasks. As used herein, an "LTC insurance product" may include a collection of benefits or other forms of coverage that an LTC insurance organization may offer to customers. As used herein, an "LTC insurance policy" may include any contract by which an LTC insurance organization promises to pay an insured party on the occurrence of a particular event.

Figure 3: Defining an LTC Benefit in Terms of Four "Atomic" Elements

Traditionally, LTC benefits have been defined in terms of a collection of individual benefits, such as a nursing home benefit, a home healthcare benefit, etc. In one embodiment of the LTC insurance administration system, an LTC benefit may be defined in terms of four "atomic" elements: restrictions of coverage, authorized medical services, authorized service providers, and authorized settings. Generally, therefore, a benefit may be defined to include individual services or groups of services that may be provided by a specific provider type in a particular type of facility, wherein the benefit may include or exclude certain conditions from coverage and may be subject to qualification and/or benefit limits. Examples of LTC benefits in one embodiment include an LTC Facility Benefit, Bed Reservation Benefit, and Alternate Plan of Care Benefit.

Figure 3 is a flowchart illustrating the definition by a user of an LTC benefit according to one embodiment. The system and method for defining an LTC benefit as shown in Figure 3 may be performed on a computer system such as an LTC insurance administration system. The resulting definition may then be used, for example, in the processing of LTC policies and claims by the insurance organization. In one embodiment, the system and method for defining an LTC benefit may be implemented through object-oriented programming techniques. In this embodiment, a class hierarchy of benefits may be created and/or modified and stored in a memory coupled to the LTC insurance administration system.

In step 302, any restrictions of coverage on behalf of a long term care insurance organization may be specified by the user. These restrictions, if any, may then be received by the LTC insurance administration system. For example, if the insured enters a nursing home for a trauma-related cause, it may be the case that another insurer other than the LTC insurance organization is the primary insurer. In this case, the restrictions of coverage associated with this LTC benefit may include a restriction of coverage if another insurer is a primary insurer. These restrictions, also referred to as limits, are discussed in greater detail with reference to Figure 4.

In step 304, one or more authorized medical services for which the LTC insurance organization will pay may be specified by the user. These authorized medical services may then be received by the LTC insurance administration system. These services are discussed in greater detail with reference to services 408 and service groups 406 as shown in Figure 4.

In step 306, one or more authorized service providers whom the LTC insurance organization will pay may be specified by the user. These authorized service providers may then be received by the LTC insurance administration system. These providers are discussed in greater detail with reference to provider types 410 as shown in Figure 4. Additional information concerning an authorized service provider may also be specified. For example, it may be specified in step 306 whether one of the authorized service providers is authorized to bill a governmental healthcare program such as Medicare and Medicaid.

In step 308, one or more authorized settings in which the medical services are performed may be specified by the user. These authorized settings may then be received by the LTC insurance administration system. The authorized settings may include, for example, a nursing home or a residence of the insured. The settings, also referred to as facilities, are discussed in greater detail with reference to facility types 412 as shown in Figure 4.

In step 310, the LTC benefit may be stored in a memory coupled to the computer system, wherein the LTC benefit includes the specified restrictions of coverage, authorized medical services, authorized service providers, and authorized settings.

In step 312, an insured of the LTC insurance organization may be reimbursed in accordance with the LTC benefit as defined in steps 302 through 308. In other words, the insured may be reimbursed for expenses incurred in

receiving one or more of the authorized long term care services from one or more of the authorized service providers in one or more of the authorized settings, subject to the restrictions of coverage.

Figure 4: An LTC Benefit Component Hierarchy

In one embodiment, an LTC benefit may be implemented as a reusable software component. As used herein, a reusable software component includes any software entity or object that may be reused from one application or environment to another. Reusable components are typically implemented using object-oriented techniques and may model "real world" entities or functions. An LTC benefit component, also referred to as an LTC insurance benefit component, may therefore include a reusable software component which models LTC insurance coverage.

Figure 4 illustrates a benefit component hierarchy according to one embodiment. The benefit component hierarchy may be used to represent LTC benefits within the LTC insurance administration system. A benefit component 402 is the highest-level component in the hierarchy and is used to model a LTC benefit offered by the LTC insurance organization (e.g., the LTC insurance carrier) to an insured party.

A diagnosis code component 404 may include diagnosis codes such as ICD-9 codes. These codes may be used to include or exclude certain conditions from coverage under a benefit 402. Diagnosis codes are widely used by the healthcare industry to identify the conditions that cause an individual to utilize healthcare services. When a claim is submitted to an insurance company, the claim usually contains one or more diagnosis codes associated with the claimant. These diagnosis codes may be associated with an entire bill or with particular services or care on the bill.

A service group component 406 may be used to group individual services 408 together. Typically, the group of individual services 408 share something in common: for example, they may be rendered in the same type of facility, by the same type of provider, and/or be subject to the same type of limit. An example of a service group 406 might be a physical therapy group than includes different service codes for an hourly visit, a reevaluation visit, etc., that are rendered by a physical therapist. In one embodiment, the service groups 406 are not visible during the claims process but may be used for easier administration of rules that apply to entire groups of services.

A service component 408 may include individual services that the insurer agrees to cover for a particular benefit 402. In one embodiment, the service component 408 may be defined by using industry-standard codes such as HCPCS, Revenue, or CPT codes, as well as user-defined codes. These services may be recognized during claim processing when bills are submitted using the service codes. In one embodiment, the service component 408 may be directly associated with a benefit 402 or part of a service group 406.

A provider type component 410 may include generic classifications for providers that the insurer may permit to render services. These classifications may coincide with state regulatory terms for providers. Examples of providers may include a physical therapist, a skilled nurse, an institutional care provider, etc. In one embodiment, the provider type component 410 may be directly associated with a service group 406 or individual service 408.

A facility type component 412 may include generic classifications defined by the insurer for the facilities in which the insurer permits providers to render services. As with providers, these classifications may coincide with state regulatory terms for facilities. Examples may include a skilled nursing facility, a custodial care facility, an adult day care center, etc. In one embodiment, the facility type component 412 may be directly associated with a service group 406 or individual service 408.

In one embodiment, a limit component may be associated with many of the other component types. Limits may generally be classified as either qualification limits or benefit limits. A qualification limit must be satisfied before benefits can be paid. The elimination period, for example, is a qualification limit. The elimination period limit, otherwise known as a waiting period or deductible, is used to determine when benefit payments may begin. This type of limit may be time-based, currency-based, or visit-based.

A benefit limit, once satisfied, may no longer be paid for the period on which the limit is defined. Benefit limits include, for example, the periodic benefit limit, max life limit, benefit period limit, and shared limit. The periodic benefit limit is used to determine the amount of benefits that will be paid (e.g., $100 per day, $500 per week, 2 visits per week, etc.). The max life limit is used to determine a maximum amount of benefit that the insurer agrees to pay for the lifetime of a policy. The benefit period limit is used to impose a limit that applies and is renewable over a defined period of time (e.g., 21 days per calendar year, 21 days per policy year, 30 days per period of care, etc.).

In one embodiment, all limits, except shared limits, may be associated with a coverage 408, benefit 402, service group 406, provider 410, or facility 412. In one embodiment, shared limits may only be associated with benefits 402. A shared limit may be used to define an extension to an existing limit. This extension may be accomplished by accessing another limit from another policy (i.e., shared type), by accessing an additional limit amount once a first limit amount has been exhausted (i.e., extra type), by accessing a limit across benefits or coverages once a benefit or coverage has exhausted its own limit (i.e., other type), or by increasing or decreasing an existing limit through a benefit change (i.e., layer type).

In one embodiment, an LTC benefit 402 as shown in Figure 4 and as defined in Figure 3 may be reused across multiple LTC products. This capability, discussed further with reference to Figures 5 and 6, enhances the flexibility of the LTC insurance administration system and the ease of creating new LTC products.

Figure 5: User Configuration of LTC Benefit Components

In one embodiment, the LTC administration system may permit a user to configure or customize reusable software components such as LTC benefit components. The LTC administration system may provide a graphical user interface (GUI) for user configuration of LTC benefit components. The GUI may permit the manipulation of graphical representations of the components through typical GUI tasks such as selecting, dragging, dropping, etc. Configuration of the components may include defining new benefit components (as discussed with reference to Figures 3 and 4) and extending existing benefit components.

Figure 5 is a flowchart illustrating configuration by a user of long term care benefit components according to one embodiment. In step 502, a collection of reusable software components for LTC, including LTC benefit components, are provided for the LTC insurance administration system. In one embodiment, as discussed with reference to Figures 3 and 4, the LTC reusable software components may include, for example, covered conditions 404, reimbursable services 406, types of providers certified to deliver services 410, permissible settings for providing services 412, and various other user-definable LTC insurance components.

In step 504, a user may be presented with the collection of LTC software components by the LTC insurance administration system. Step 504 may include displaying graphical representations of the LTC software components on a display device coupled to the LTC insurance administration system. These LTC software components may include both pre-defined components that are delivered to the user with the LTC insurance administration system and also user-defined components that have been stored and added to a library of LTC software components.

In step 506, the user may be prompted or permitted to select one of the LTC software components. Step 506 may include permitting the user to select one of the graphical representations displayed on the display device coupled to the LTC insurance administration system. For example, the GUI may include one or more "panes" or sections of windows which contain lists of LTC components. The user's selection of one of the LTC software components may be received by the LTC insurance administration system. Receiving the selection by the user may include receiving user input applied to the graphical representations of the reusable software components.

In step 508, the user may be prompted or permitted to specify parameters relating to the selected LTC software component. For example, the parameters may relate to the details of a particular benefit component 402, diagnosis code component 404, service group component 406, service component 408, provider type component 410, facility type component 412, or limit component, as discussed with reference to Figure 4. The parameters may also specify the associations between LTC components as shown in Figure 4. For example, an existing provider type component 410 may be associated with multiple benefit components 402, or an existing benefit component 402 may be associated with a new provider type component 410. In this way, the user may be permitted to extend one or more of the collection of reusable software components. In one embodiment, the user may define one or more new reusable software components, such as by creating a new component by using an existing component as a template. Extending the selected reusable software component may include applying the parameters to the selected graphical representation. The parameters specified by the user may be received by the LTC insurance administration system. Receiving the user-specified parameters may include receiving user input applied to the graphical representations of the reusable software components.

In step 510, the selected reusable software component and the user-specified parameters relating to the selected reusable software component may be stored in a memory coupled to the computer system.

In one embodiment, steps 506 through 510 may be repeated one or more times until the user has selected, configured, and stored all of the LTC insurance components so desired.

Figure 6: User Definition of an LTC Product Offering

In one embodiment, the LTC administration system may permit a user to define and/or configure LTC product offerings for a particular LTC insurance organization. As used herein, an LTC product offering is used synonymously with an LTC product. As with the method shown in Figure 5, a GUI may be provided for the definition and/or configuration of an LTC product. Figure 6 illustrates a computer-implementable method for defining and/or configuring an LTC product offering according to one embodiment.

In step 602, one or more LTC benefit components 402 may be defined by the user by specifying parameters of reusable software components for LTC. This step is discussed in greater detail with reference to Figures 3 through 5. In one embodiment, the LTC benefit components may be defined by selecting their corresponding graphical representations and applying the parameters to the corresponding graphical representations. The parameters may then be received by the LTC insurance administration system.

In step 604, the LTC benefit components 402, once defined, may then be combined into one or more LTC product offerings. In one embodiment, combining the LTC benefit components 402 into one or more LTC product offerings may include linking or associating the corresponding graphical representations of the benefit components 402 through appropriate GUI-based commands.

In step 606, the LTC product offerings may be stored in a memory coupled to the computer system. The LTC benefit components may be stored after step 602 or step 604.

Figure 7: User Definition of an LTC Provider Network

In one embodiment, the LTC administration system may permit a user to define and/or configure healthcare and LTC provider networks for a particular LTC insurance organization. As used herein, a provider network may include one or more LTC or healthcare providers whom the LTC insurance organization is willing to pay for services. A healthcare provider is typically an individual or organization that is qualified, trained, and/or licensed to administer particular healthcare services to an insured party. As with the methods shown in Figures 5 and 6, a GUI may be provided for the definition and/or configuration of an LTC provider network. Figure 7 illustrates a computer-implementable method for defining an LTC provider network according to one embodiment. Note that the steps of the method may be performed in various orders, as appropriate.

In step 702, one or more types of healthcare providers for LTC may be specified by the user. In one embodiment, provider types 410 and/or facility types 412 may be specified. Provider types 410 and facility types 412 are further discussed with reference to Figure 4, and user definition and configuration of provider 410 and facility type components 412 are further discussed with reference to Figure 5. The user's specification of provider types 410 and/or facility types 412 for LTC may then be received by the LTC insurance administration system. Step 702 may further include creating license type components which may be associated with provider types 410 and/or facility types 412 which hold a particular license.

In step 704, a healthcare provider network which is supported by a long term care insurance organization may be specified by the user. In one embodiment, step 704 may include specifying one or more of a network name, network administrator, effective date, and/or termination date. Initially, the provider network may include no providers until the first specific provider is added. The user's specification of the provider network may then be received by the LTC insurance administration system.

In step 706, the specified types of healthcare providers and the specified healthcare provider network may be optionally stored in a memory coupled to the computer system. In various embodiments, step 706 may be performed at substantially any point throughout the process of defining an LTC provider network, as desired.

In step 708, a specific healthcare provider for long term care may be identified by the user. The specific healthcare provider may be associated with one or more of the healthcare provider types 410, facility types 412, and/or license types specified in step 702. The identification of the specific healthcare provider may then be received and optionally stored in a memory by the LTC insurance administration system.

In step 710, the specific provider may be associated with the provider network specified in step 704. In one embodiment, this association may be specified by specifying the provider network in a setting for the specific provider. In one embodiment, the inclusion of a provider type and/or facility type in the network may result in reduced, in-network coinsurance rates for services performed by the included provider type and/or facility type. This association information may then be received and optionally stored in a memory by the LTC insurance administration system

In step 712, it may be determined whether all of the healthcare providers in the provider network have been specified. Steps 708 and 710 may be repeated until all or of the healthcare providers in the healthcare provider network have been specified.

The LTC provider network and/or specific provider may be further configured by the user. For example, a negotiated rate for healthcare services between the LTC insurance organization and one of the specific healthcare providers may be specified. Additionally, a relationship between one of the specific healthcare providers and the

LTC insurance organization may be specified. The relationship may be, for example, a preferred provider relationship or an exclusive provider relationship.

The insured party may be reimbursed, or the authorized provider may be paid, for authorized services performed by the provider in the healthcare provider network. As a result of including the provider in the network, the services may qualify for reduced, in-network co-insurance rates.

In one embodiment, the system and method for defining LTC provider networks may be implemented through object-oriented programming techniques. For example, each of the types of healthcare providers may be a subclass of an object-oriented healthcare provider class. Each of the specific healthcare providers may then be a subclass of the appropriate healthcare provider type subclass.

Figures 8-9: A Four-Tier Architecture for Developing an LTC Administration System

In one embodiment, the various components discussed with reference to Figures 3 through 7 may be created with a multi-tier architecture. Figure 8 is a block diagram illustrating a four-tier architecture for an LTC administration system 800 according to one embodiment.

A meta level 802 may include a set of available options for the LTC administration system for a particular LTC insurance organization. The set of available options may include a set of available functions and a set of available values for each available function. For example, the meta level 802 may include a plurality of billing rates (annual, weekly, monthly, etc.) and a plurality of billing methods (direct mail, direct debit, credit card, etc) which may potentially be used by the LTC insurance organization in the LTC administration system. Default values may be specified at the meta level 802. The meta level 802 may include one or more software objects 803 which represent or implement the set of available options.

A description level 804 may include product-level details for one or more insurance products offered by the LTC insurance organization. As discussed above, a product includes one or more LTC benefits or coverages. The product-level details may include a selection of the available options defined at the meta level 802. For example, a particular product may permit only direct mail and direct debit billing methods, but not a credit card billing method, out of the potential billing methods specified at the meta level 802. A particular product may inherit or override values from the meta level 802. The description level 804 may include one or more software objects 805 which represent or implement the product-level details.

A production level 806 may include policy-level details for one or more insurance policies offered under one or more of the insurance products defined at the description level 804. A policy is a particular contract between the LTC insurance organization and an insured under a particular product. A particular policy may inherit or override values from the description level 804. For example, if one billing method were specified as a default at the meta level 802 or description level 804, then that default could be overridden at the production level 806 and another billing method specified. The production level 806 may include one or more software objects 807 which represent or implement the policy-level details.

An activity level 808 may include transaction-level details for one or more insurance transactions occurring under one or more of the insurance policies defined at the production level 806. A particular transaction may inherit or override values from the production level 806. For example, the preferred or default billing method for a particular policy could be overridden for a period of time if the insured were to be on vacation. The activity level 808 may include one or more software objects 809 which represent or implement the transaction-level details.

As used herein, an "object" is a software entity that may include data and methods to operate on the data. The meta-level objects 803 may therefore include methods and attributes associated with the available options. The

description-level objects 805 may inherit methods and attributes from the meta-level objects 803, the production-level objects 807 may inherit methods and attributes from the description-level objects 805, and the activity-level objects 809 may inherit methods and attributes from the production-level objects 807.

In one embodiment, the meta level may include one or more default values for one or more of the available options. The product-level details at the description level may then inherit or override the one or more default values for the available options defined at the meta level. The policy-level details at the production level may then inherit or override the one or more default values from the product-level details defined at the description level. The transaction-level details at the activity level may then inherit or override the one or more default values from the policy-level details defined at the production level.

Figure 9 is a flowchart illustrating the development of an LTC administration system using the four-tier architecture according to one embodiment. In step 902, a meta level is defined for the LTC administration system. The meta level may include a set of available options for the long term care administration system. The set of available options may include a set of available functions and a set of available values for each available function.

In step 904, a description level is defined for the long term care administration system. The description level may include product-level details for one or more insurance products offered by the long term care administration system. The product-level details include a selection of the available options defined at the meta level.

In step 906, a production level is defined for the long term care administration system. The production level may include policy-level details for one or more insurance policies offered under one or more of the insurance products defined at the description level.

In step 908, an activity level is defined for the long term care administration system. The activity level may include transaction-level details for one or more insurance transactions occurring under one or more of the insurance policies defined at the production level.

Defining the levels in steps 902 through 908 may include implementing software objects 803, 805, 807, 809 at each level in accordance with object-oriented programming techniques. The objects at a lower level may be implemented as subclasses of objects at a higher level. Therefore, the objects at a lower level may inherit attributes, methods, and/or values from the objects at a higher level. As discussed with reference to Figure 8, the objects may also override these inherited characteristics, such as default values.

In step 910, the meta-level objects 803, description-level objects 805, production-level objects 807, and activity-level objects 809 may be stored in a memory coupled to the computer system.

In step 912, the LTC administration system may be operated by executing program instructions provided by the meta-level objects 803, description-level objects 805, production-level objects 807, and activity-level objects 809 on a processor coupled to the computer system.

Various embodiments may further include receiving or storing instructions and/or data implemented in accordance with the foregoing description upon a carrier medium. Suitable carrier media may include storage media or memory media such as magnetic or optical media, e.g., disk or CD-ROM, as well as transmission media or signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as networks 102 and/or 104 and/or a wireless link.

Although the system and method of the present invention have been described in connection with several embodiments, the invention is not intended to be limited to the specific forms set forth herein, but on the contrary, it

is intended to cover such alternatives, modifications, and equivalents as can be reasonably included within the spirit and scope of the invention as defined by the appended claims.

WHAT IS CLAIMED IS:

1. A method for allowing user customization of a long term care insurance policy through use of a computer system, the method comprising:

(a) presenting a user with a collection of reusable software components, wherein the reusable software components comprise long term care insurance components;

(b) prompting the user to select one of the reusable software components;

(c) prompting the user to specify parameters for the selected reusable software component, wherein the parameters relate to administration of long term care insurance; and

(d) storing the selected reusable software component and the user-specified parameters relating to the selected reusable software component in a memory coupled to the computer system.

2. The method of claim 1, further comprising:

repeating said steps (b) - (d) one or more times until the user has chosen all of the desired reusable software components.

3. The method of claim 1, further comprising:

allowing the user to extend one or more of the collection of reusable software components;

repeating steps (c) and (d) for each extended reusable software component.

4. The method of claim 1, further comprising:

allowing the user to define one or more new reusable software components using the selected reusable software component as a template;

repeating steps (c) and (d) for each user-defined reusable software component.

5. The method of claim 1, wherein the long term care insurance components comprise covered conditions.

6. The method of claim 1, wherein the long term care insurance components comprise reimbursable services.

7. The method of claim 1, wherein the long term care insurance components comprise types of providers certified to deliver services.

8. The method of claim 1, wherein the long term care insurance components comprise permissible settings for providing services.

9. The method of claim 1, wherein the long term care insurance components comprise user-definable long term care insurance benefit components.

10. The method of claim 1,

wherein step (a) comprises displaying graphical representations of the reusable software components on a display coupled to the computer system; and

wherein step (b) comprises permitting the user to select one of the graphical representations.

11. A carrier medium comprising program instructions for administration of long term care insurance policies on a computer system by a user of the computer system, wherein the program instructions are executable by the computer system to implement:

providing a collection of reusable software components, wherein the reusable software components comprise long term care insurance benefit components;

inputting a selection by the user of one of the reusable software components;

inputting parameters specified by the user for the selected reusable software component, wherein the parameters relate to administration of long term care insurance; and

storing the selected reusable software component and the user-specified parameters relating to the selected reusable software component in a memory coupled to the computer system.

12. The carrier medium of claim 11, wherein the program instructions are further executable by the computer system to implement:

inputting an extension to one of the reusable software components from the user; and

storing the extension to the reusable software component in the memory coupled to the computer system.

13. The carrier medium of claim 11, wherein the extension to the reusable software component comprises a covered condition.

14. The carrier medium of claim 11, wherein the extension to the reusable software component comprises a reimbursable service.

15. The carrier medium of claim 11, wherein the extension to the reusable software component comprises a type of healthcare provider which is certified to deliver healthcare services.

16. The carrier medium of claim 11, wherein the extension to the reusable software component comprises a permissible setting for providing healthcare services.

17. The carrier medium of claim 11, wherein the program instructions are further executable by the computer system to implement:

inputting a user definition of a new reusable software component; and

storing the new reusable software component in the memory coupled to the computer system.

18. The carrier medium of claim 17, wherein the new reusable software component comprises a covered condition.

19. The carrier medium of claim 17, wherein the new reusable software component comprises a reimbursable service.

20. The carrier medium of claim 17, wherein the new reusable software component comprises a type of healthcare provider which is certified to deliver healthcare services.

21. The carrier medium of claim 17, wherein the new reusable software component comprises a permissible setting for providing healthcare services.

22. The carrier medium of claim 11, wherein the program instructions are further executable by the computer system to implement:

displaying graphical representations of the reusable software components on a display coupled to the computer system;

wherein inputting the selection by the user of one of the reusable software components comprises receiving user input applied to the graphical representations of the reusable software components; and

wherein inputting parameters specified by the user relating to the selected reusable software component comprises receiving user input applied to the graphical representations of the reusable software components.

23. A method for administration of long term care insurance policies on a computer system by a user of the computer system, the method comprising:

selecting one of a plurality of reusable software components, wherein the reusable software components comprise long term care insurance components;

extending the selected reusable software component by entering parameters for the selected reusable software component, wherein the parameters relate to administration of long term care insurance.

24. The method of claim 23, wherein the extended reusable software component comprises a covered condition.

25. The method of claim 23, wherein the extended reusable software component comprises a reimbursable service.

26. The method of claim 23, wherein the extended reusable software component comprises a type of healthcare provider which is certified to deliver healthcare services.

27. The method of claim 23, wherein the extended reusable software component comprises a permissible setting for providing healthcare services.

28. The method of claim 23,

wherein each of the reusable software components corresponds to a graphical representation which is displayed on a display coupled to the computer system;

wherein selecting one of the plurality of reusable software components comprises selecting the corresponding graphical representation; and

wherein extending the selected reusable software component by entering parameters relating to the selected reusable software component comprises applying the parameters to the selected graphical representation.

29. A method for administration of long term care insurance policies on a computer system by a user of the computer system, the method comprising:

defining one or more long term care insurance benefit components by specifying parameters of one or more reusable software components, wherein the parameters relate to administration of long term care insurance;

combining the long term care insurance benefit components into one or more long term care insurance products; and

storing the long term care insurance products in a memory coupled to the computer system.

30. The method of claim 29, wherein the reusable software components comprise a covered condition.

31. The method of claim 29, wherein the reusable software components comprise a reimbursable service.

32. The method of claim 29, wherein the reusable software components comprise a type of healthcare provider which certified to deliver healthcare services.

33. The method of claim 29, wherein the reusable software components comprise a permissible setting for providing healthcare services.

34. The method of claim 29,

wherein each of the reusable software components corresponds to a graphical representation which is displayed on a display coupled to the computer system;

wherein defining the one or more long term care insurance benefit components by specifying the parameters of the reusable software components comprises selecting the corresponding graphical representations of the reusable software components and applying the parameters to the corresponding graphical representations; and

wherein combining the long term care insurance benefit components into one or more long term care insurance products comprises linking the corresponding graphical representations.

35. The method of claim 29, further comprising:

selling one of the long term care insurance products to a customer;

paying for authorized healthcare services performed for the customer by an authorized provider in an authorized setting under terms of the long term care insurance product sold to the customer.

36. A computer system for administration of long term care insurance policies, wherein the system comprises:

a CPU;

a memory coupled to the CPU, wherein the memory stores program instructions executable by the CPU, and wherein the program instructions are executable to:

provide a collection of reusable software components, wherein the reusable software components comprise long term care insurance benefit components;

input a selection by a user of one of the reusable software components;

input parameters specified by the user for the selected reusable software component, wherein the parameters relate to administration of long term care insurance; and

store the selected reusable software component and the user-specified parameters relating to the selected reusable software component in the memory.

37. The computer system of claim 36, wherein the program instructions are further executable by the CPU to:

input an extension to one of the reusable software components from the user; and

store the extension to the reusable software component in the memory.

38. The computer system of claim 36, wherein the extension to the reusable software component comprises a covered condition.

39. The computer system of claim 36, wherein the extension to the reusable software component comprises a reimbursable service.

40. The computer system of claim 36, wherein the extension to the reusable software component comprises a type of healthcare provider which is certified to deliver healthcare services.

41. The computer system of claim 36, wherein the extension to the reusable software component comprises a permissible setting for providing healthcare services.

42. The computer system of claim 36, wherein the program instructions are further executable by the computer system to implement:

inputting a user definition of a new reusable software component; and

storing the new reusable software component in the memory.

43. The computer system of claim 42, wherein the new reusable software component comprises a covered condition.

44. The computer system of claim 42, wherein the new reusable software component comprises a reimbursable service.

45. The computer system of claim 42, wherein the new reusable software component comprises a type of healthcare provider which is certified to deliver healthcare services.

46. The computer system of claim 42, wherein the new reusable software component comprises a permissible setting for providing healthcare services.

47. The computer system of claim 36, wherein the program instructions are further executable by the CPU to:

display graphical representations of the reusable software components on a display coupled to the CPU;

wherein inputting the selection by the user of one of the reusable software components comprises receiving user input applied to the graphical representations of the reusable software components; and

wherein inputting parameters specified by the user relating to the selected reusable software component comprises receiving user input applied to the graphical representations of the reusable software components.

48. A method comprising:

selecting one of a plurality of reusable software components for insurance administration;

entering parameters for the selected reusable software component, wherein the parameters relate to administration of insurance.

49. A method for defining healthcare provider networks for long term care through use of a computer system, the method comprising:

(a) specifying a healthcare provider network which is supported by a long term care insurance organization;

(b) identifying a specific healthcare provider for long term care, wherein the specific healthcare provider is authorized by the long term care insurance organization to perform healthcare services for an insured party of the long term care insurance organization;

(c) associating the specific healthcare provider with the healthcare provider network;

(d) repeating said steps (b) and (c) for a plurality of specific healthcare providers in the healthcare provider network; and

(e) storing the one or more specific healthcare providers and the healthcare provider network in a memory coupled to the computer system.

50. The method of claim 49, further comprising:

reimbursing the insured party for the authorized healthcare services performed by one of the specific healthcare providers in the healthcare provider network.

51. The method of claim 49, further comprising:

paying one of the specific healthcare providers in the healthcare provider network for the authorized healthcare services performed for the insured party.

52. The method of claim 49,

wherein the authorized healthcare services performed for the insured by one of the specific healthcare providers in the healthcare provider network qualify for reduced in-network rates as a result of said step (c).

53. The method of claim 49, further comprising:

specifying one or more provider types for long term care;

associating each specific healthcare provider with one or more of the provider types.

54. The method of claim 49, further comprising:

specifying one or more facility types for long term care;

associating each specific healthcare provider with one or more of the facility types.

55. The method of claim 49, further comprising:

specifying one or more license types for long term care;

associating one or more of the specific healthcare providers with one or more of the license types.

56. The method of claim 49,

wherein said step (d) comprises repeating said steps (b) and (c) for all healthcare providers in the healthcare provider network.

57. The method of claim 49, further comprising:

specifying a negotiated rate for the authorized services between the long term care insurance organization and one of the specific healthcare providers in the healthcare provider network.

58. The method of claim 57, further comprising:

reimbursing the insured party according to the negotiated rate for the authorized healthcare services performed by one of the specific healthcare providers in the healthcare provider network.

59. The method of claim 57, further comprising:

paying one of the specific healthcare providers in the healthcare provider network the negotiated rate for the authorized healthcare services performed for the insured party.

60. The method of claim 49, further comprising:

specifying a relationship between one of the specific healthcare providers and the long term care insurance organization.

61. The method of claim 60, wherein the relationship comprises a preferred provider relationship.

62. The method of claim 60, wherein the relationship comprises an exclusive provider relationship.

63. The method of claim 49,

wherein said step (a) comprises specifying a name and an administrator for the healthcare provider network.

64. A computer system for defining healthcare provider networks for long term care, the computer system comprising:

a CPU;

a memory coupled to the CPU, wherein the memory stores program instructions executable by the CPU, and wherein the program instructions are executable to:

(a) input a specification for a healthcare provider network which is supported by a long term care insurance organization;

(b) input an identification of a specific healthcare provider for long term care, wherein the specific healthcare provider is authorized by the long term care insurance organization to perform healthcare services for an insured party of the long term care insurance organization;

(c) input an association of the specific healthcare provider with the healthcare provider network;

(d) repeat said steps (b) and (c) for a plurality of specific healthcare providers in the healthcare provider network; and

(e) store the one or more specific healthcare providers and the healthcare provider network in the memory.

65. The computer system of claim 64, wherein the program instructions are further executable by the CPU to:

reimburse the insured party for the authorized healthcare services performed by one of the specific healthcare providers in the healthcare provider network.

66. The computer system of claim 64, wherein the program instructions are further executable by the CPU to:

pay one of the specific healthcare providers in the healthcare provider network for the authorized healthcare services performed for the insured party.

67. The computer system of claim 64,

wherein the authorized healthcare services performed for the insured by one of the specific healthcare providers in the healthcare provider network qualify for reduced in-network rates as a result of said step (c).

68. The computer system of claim 64, wherein the program instructions are further executable by the CPU to:

input one or more provider types for long term care;

input an association of each specific healthcare provider with one or more of the provider types.

69. The computer system of claim 64, wherein the program instructions are further executable by the CPU to:

input one or more facility types for long term care;

input an association of each specific healthcare provider with one or more of the facility types.

70. The computer system of claim 64, wherein the program instructions are further executable by the CPU to:

input a specification for one or more license types for long term care;

input an association of one or more of the specific healthcare providers with one or more of the license types.

71. The computer system of claim 64,

wherein in executing said step (d), the program instructions are further executable by the CPU to repeat said steps (b) and (c) for all healthcare providers in the healthcare provider network.

72. The computer system of claim 64, wherein the program instructions are further executable by the CPU to:

input a negotiated rate for the authorized services between the long term care insurance organization and one of the specific healthcare providers in the healthcare provider network.

73. The computer system of claim 72, wherein the program instructions are further executable by the CPU to:

reimburse the insured party according to the negotiated rate for the authorized healthcare services performed by one of the specific healthcare providers in the healthcare provider network.

74. The computer system of claim 72, wherein the program instructions are further executable by the CPU to:

pay one of the specific healthcare providers in the healthcare provider network the negotiated rate for the authorized healthcare services performed for the insured party.

75. The computer system of claim 64, wherein the program instructions are further executable by the CPU to:

input a relationship between one of the specific healthcare providers and the long term care insurance organization.

76. The computer system of claim 75, wherein the relationship comprises a preferred provider relationship.

77. The computer system of claim 75, wherein the relationship comprises an exclusive provider relationship.

78. The computer system of claim 64,

wherein in executing said step (a), the program instructions are further executable by the CPU to input a name and an administrator for the healthcare provider network.

79. A carrier medium comprising program instructions for defining healthcare provider networks for long term care, wherein the program instructions are executable by a computer system to implement:

(a) inputting a specification for a healthcare provider network which is supported by a long term care insurance organization;

(b) inputting an identification of a specific healthcare provider for long term care, wherein the specific healthcare provider is authorized by the long term care insurance organization to perform healthcare services for an insured party of the long term care insurance organization;

(c) inputting an association of the specific healthcare provider with the healthcare provider network;

(d) repeating said steps (b) and (c) for a plurality of specific healthcare providers in the healthcare provider network; and

(e) storing the one or more specific healthcare providers and the healthcare provider network in a memory coupled to the computer system.

80. The carrier medium of claim 79, wherein the program instructions are further executable by the computer system to implement:

reimbursing the insured party for the authorized healthcare services performed by one of the specific healthcare providers in the healthcare provider network.

81. The carrier medium of claim 79, wherein the program instructions are further executable by the computer system to implement:

paying one of the specific healthcare providers in the healthcare provider network for the authorized healthcare services performed for the insured party.

82. The carrier medium of claim 79,

wherein the authorized healthcare services performed for the insured by one of the specific healthcare providers in the healthcare provider network qualify for reduced in-network rates as a result of said step (c).

83. The carrier medium of claim 79, wherein the program instructions are further executable by the computer system to implement:

inputting one or more provider types for long term care;

inputting an association of each specific healthcare provider with one or more of the provider types.

84. The carrier medium of claim 79, wherein the program instructions are further executable by the computer system to implement:

inputting one or more facility types for long term care;

inputting an association of each specific healthcare provider with one or more of the facility types.

85. The carrier medium of claim 79, wherein the program instructions are further executable by the computer system to implement:

inputting a specification for one or more license types for long term care;

inputting an association of one or more of the specific healthcare providers with one or more of the license types.

86. The carrier medium of claim 79,

wherein in executing said step (d), the program instructions are further executable by the computer system to implement repeating said steps (b) and (c) for all healthcare providers in the healthcare provider network.

87. The carrier medium of claim 79, wherein the program instructions are further executable by the computer system to implement:

inputting a negotiated rate for the authorized services between the long term care insurance organization and one of the specific healthcare providers in the healthcare provider network.

88. The carrier medium of claim 87, wherein the program instructions are further executable by the computer system to implement:

reimbursing the insured party according to the negotiated rate for the authorized healthcare services performed by one of the specific healthcare providers in the healthcare provider network.

89. The carrier medium of claim 87, wherein the program instructions are further executable by the computer system to implement:

paying one of the specific healthcare providers in the healthcare provider network the negotiated rate for the authorized healthcare services performed for the insured party.

90. The carrier medium of claim 79, wherein the program instructions are further executable by the computer system to implement:

inputting a relationship between one of the specific healthcare providers and the long term care insurance organization.

91. The carrier medium of claim 90, wherein the relationship comprises a preferred provider relationship.

92. The carrier medium of claim 90, wherein the relationship comprises an exclusive provider relationship.

93. The carrier medium of claim 79,

wherein in executing said step (a), the program instructions are further executable by the computer system to implement inputting a name and an administrator for the healthcare provider network.

94. A method comprising:

specifying a healthcare provider network;

identifying one or more healthcare providers which are authorized to perform healthcare services; and

associating the identified healthcare providers with the healthcare provider network.

95. A method for defining a long term care benefit through use of a computer system, the method comprising:

specifying any restrictions of coverage relating to the long term care benefit offered by a long term care insurance organization;

specifying one or more authorized medical services for which the long term care insurance organization will pay;

specifying one or more authorized service providers whom the long term care insurance organization will pay;

specifying one or more authorized settings in which the medical services are performed; and

storing the long term care benefit in a memory coupled to the computer system, wherein the long term care benefit comprises the specified restrictions of coverage, authorized medical services, authorized service providers, and authorized settings.

96. The method of claim 95, further comprising:

reimbursing a client of the long term care insurance organization for expenses incurred in receiving one or more of the authorized long term care services from one or more of the authorized service providers in one or more of the authorized settings, subject to the restrictions of coverage.

97. The method of claim 95,

wherein the restrictions of coverage comprise a qualification limit.

98. The method of claim 95,

wherein the restrictions of coverage comprise a benefit limit.

99. The method of claim 95,

wherein the authorized medical services comprise industry-standard codes which represent medical services.

100. The method of claim 95,

wherein the authorized service providers comprise a physical therapist.

101. The method of claim 95,

wherein the authorized service providers comprise a nurse.

102. The method of claim 95,

wherein the authorized service providers comprise an institutional care provider.

103. The method of claim 95, further comprising:

specifying whether one of the authorized service providers is authorized to bill a governmental healthcare program.

104. The method of claim 95,

wherein the authorized settings comprise a nursing facility.

105. The method of claim 95,

wherein the authorized settings comprise a custodial care facility.

106. The method of claim 95,

wherein the authorized settings comprise an adult day care facility.

107. The method of claim 95,

wherein the restrictions of coverage, authorized medical services, authorized service providers, and authorized settings comprise a plurality of reusable software components.

108. The method of claim 107, further comprising:

combining the reusable software components to define the long term care benefit.

109. The method of claim 107, further comprising:

combining subsets of the plurality of reusable software components to define a plurality of long term care benefits.

110. The method of claim 109, further comprising:

combining subsets of the plurality of long term care benefits to define a plurality of long term care products.

111. A carrier medium comprising program instructions, wherein the program instructions are executable by a computer system to implement:

inputting any restrictions of coverage relating to a long term care benefit offered by a long term care insurance organization;

inputting one or more authorized medical services for which the long term care insurance organization will pay;

inputting one or more authorized service providers whom the long term care insurance organization will pay;

inputting one or more authorized settings in which the medical services are performed; and

storing the long term care benefit in a memory coupled to the computer system, wherein the long term care benefit comprises the specified restrictions of coverage, authorized medical services, authorized service providers, and authorized settings.

112. The carrier medium of claim 111, wherein the program instructions are further executable by the computer system to implement:

reimbursing a client of the long term care insurance organization for expenses incurred in receiving one or more of the authorized long term care services from one or more of the authorized service providers in one or more of the authorized settings, subject to the restrictions of coverage.

113. The carrier medium of claim 111,

wherein the restrictions of coverage comprise a qualification limit.

114. The carrier medium of claim 111,

wherein the restrictions of coverage comprise a benefit limit.

115. The carrier medium of claim 111,

wherein the authorized medical services comprise industry-standard codes which represent medical services.

116. The carrier medium of claim 111,

wherein the authorized service providers comprise a physical therapist.

117. The carrier medium of claim 111,

wherein the authorized service providers comprise a nurse.

118. The carrier medium of claim 111,

wherein the authorized service providers comprise an institutional care provider.

119. The carrier medium of claim 111, wherein the program instructions are further executable by the computer system to implement:

inputting a determination of whether one of the authorized service providers is authorized to bill a governmental healthcare program.

120. The carrier medium of claim 111,
wherein the authorized settings comprise a nursing facility.

121. The carrier medium of claim 111,
wherein the authorized settings comprise a custodial care facility.

122. The carrier medium of claim 111,
wherein the authorized settings comprise an adult day care facility.

123. The carrier medium of claim 111,
wherein the restrictions of coverage, authorized medical services, authorized service providers, and authorized settings comprise a plurality of reusable software components.

124. The carrier medium of claim 123, wherein the program instructions are further executable by the computer system to implement:
combining the reusable software components to define the long term care benefit.

125. The carrier medium of claim 123, wherein the program instructions are further executable by the computer system to implement:
combining subsets of the plurality of reusable software components to define a plurality of long term care benefits.

126. The carrier medium of claim 125, wherein the program instructions are further executable by the computer system to implement:
combining subsets of the plurality of long term care benefits to define a plurality of long term care products.

127. A computer system comprising:
a CPU;
a memory coupled to the CPU, wherein the memory stores program instructions executable by the CPU, and wherein the program instructions are executable to:
input any restrictions of coverage relating to a long term care benefit offered by a long term care insurance organization;
input one or more authorized medical services for which the long term care insurance organization will pay;
input one or more authorized service providers whom the long term care insurance organization will pay;
input one or more authorized settings in which the medical services are performed; and

store the long term care benefit in the memory, wherein the long term care benefit comprises the specified restrictions of coverage, authorized medical services, authorized service providers, and authorized settings.

128. The computer system of claim 127, wherein the program instructions are further executable by the CPU to:

reimburse a client of the long term care insurance organization for expenses incurred in receiving one or more of the authorized long term care services from one or more of the authorized service providers in one or more of the authorized settings, subject to the restrictions of coverage.

129. The computer system of claim 127,

wherein the restrictions of coverage comprise a qualification limit.

130. The computer system of claim 127,

wherein the restrictions of coverage comprise a benefit limit.

131. The computer system of claim 127,

wherein the authorized medical services comprise industry-standard codes which represent medical services.

132. The computer system of claim 127,

wherein the authorized service providers comprise a physical therapist.

133. The computer system of claim 127,

wherein the authorized service providers comprise a nurse.

134. The computer system of claim 127,

wherein the authorized service providers comprise an institutional care provider.

135. The computer system of claim 127, wherein the program instructions are further executable by the computer system to implement:

inputting a determination of whether one of the authorized service providers is authorized to bill a governmental healthcare program.

136. The computer system of claim 127,

wherein the authorized settings comprise a nursing facility.

137. The computer system of claim 127,

wherein the authorized settings comprise a custodial care facility.

138. The computer system of claim 127,

wherein the authorized settings comprise an adult day care facility.

139. The computer system of claim 127,

wherein the restrictions of coverage, authorized medical services, authorized service providers, and authorized settings comprise a plurality of reusable software components.

140. The computer system of claim 139, wherein the program instructions are further executable by the CPU to:

combine the reusable software components to define the long term care benefit.

141. The computer system of claim 139, wherein the program instructions are further executable by the CPU to:

combine subsets of the plurality of reusable software components to define a plurality of long term care benefits.

142. The computer system of claim 141, wherein the program instructions are further executable by the CPU to:

combine subsets of the plurality of long term care benefits to define a plurality of long term care products.

143. A method for defining an insurance benefit through use of a computer system, the method comprising:

specifying any restrictions of coverage relating to the benefit offered by an insurance organization;

specifying one or more authorized services for which the insurance organization will pay;

specifying one or more authorized service providers whom the insurance organization will pay;

specifying one or more authorized settings in which the services are performed; and

wherein the benefit comprises the specified restrictions of coverage, authorized services, authorized service providers, and authorized settings.

144. A method for development of a long term care administration system for a long term care insurance organization through use of a computer system, the method comprising:

defining a meta level for the long term care administration system, wherein the meta level comprises a set of available options for the long term care administration system;

defining a description level for the long term care administration system, wherein the description level comprises product-level details for one or more insurance products offered by the long term care administration system, and wherein the product-level details comprise a selection of the available options defined at the meta level;

defining a production level for the long term care administration system, wherein the production level comprises policy-level details for one or more insurance policies offered under one or more of the insurance products defined at the description level;

defining an activity level for the long term care administration system, wherein the activity level comprises transaction-level details for one or more insurance transactions occurring under one or more of the insurance policies defined at the production level.

145. The method of claim 144, further comprising:

implementing one or more software objects at the meta level, wherein the meta-level objects comprise methods and attributes associated with the available options.

146. The method of claim 145, further comprising:

implementing one or more software objects at the description level, wherein the description-level objects inherit methods and attributes from the meta-level objects.

147. The method of claim 146, further comprising:

implementing one or more software objects at the production level, wherein the production-level objects inherit methods and attributes from the description-level objects.

148. The method of claim 147, further comprising:

implementing one or more software objects at the activity level, wherein the activity-level objects inherit methods and attributes from the production-level objects.

149. The method of claim 148, further comprising:

storing the meta-level objects, description-level objects, production-level objects, and activity-level objects in a memory coupled to the computer system.

150. The method of claim 148, further comprising:

operating the long term care administration system by executing program instructions provided by the meta-level objects, description-level objects, production-level objects, and activity-level objects on a processor coupled to the computer system.

151. The method of claim 144,

wherein the set of available options at the meta level further comprises a set of available functions and a set of available values for each available function.

152. The method of claim 144,

wherein the meta level further comprises one or more default values for one or more of the available options for the long term care insurance system.

153. The method of claim 152,

wherein the product-level details at the description level inherit the one or more default values for the available options defined at the meta level.

154. The method of claim 153,

wherein the product-level details at the description level override one or more of the default values inherited from the meta level.

155. The method of claim 153,

wherein the policy-level details at the production level inherit the one or more default values from the product-level details defined at the description level.

156. The method of claim 155,

wherein the policy-level details at the production level override one or more of the default values inherited from the description level.

157. The method of claim 155,

wherein the transaction-level details at the activity level inherit the one or more default values from the policy-level details defined at the production level.

158. The method of claim 157,

wherein the transaction-level details at the activity level override one or more of the default values inherited from the production level.

159. A computer system for development of a long term care administration system for a long term care insurance organization, the computer system comprising:

one or more software objects at a meta level for the long term care administration system, wherein the meta level comprises a set of available options for the long term care administration system;

one or more software objects at a description level for the long term care administration system, wherein the description level comprises product-level details for one or more insurance products offered by the long term care administration system, and wherein the product-level details comprise a selection of the available options defined at the meta level;

one or more software objects at a production level for the long term care administration system, wherein the production level comprises policy-level details for one or more insurance policies offered under one or more of the insurance products defined at the description level;

one or more software objects at an activity level for the long term care administration system, wherein the activity level comprises transaction-level details for one or more insurance transactions occurring under one or more of the insurance policies defined at the production level.

160. The computer system of claim 159,

wherein the meta-level objects comprise methods and attributes associated with the available options;

wherein the description-level objects inherit methods and attributes from the meta-level objects.

161. The computer system of claim 160,

wherein the production-level objects inherit methods and attributes from the description-level objects.

162. The computer system of claim 161,

wherein the activity-level objects inherit methods and attributes from the production-level objects.

163. The computer system of claim 159, further comprising:

a memory, wherein the memory stores the meta-level objects, description-level objects, production-level objects, and activity-level objects.

164. The computer system of claim 159, further comprising:

a CPU, wherein the CPU is operable to execute program instructions provided by the meta-level objects, description-level objects, production-level objects, and activity-level objects.

165. The computer system of claim 159,

wherein the set of available options at the meta level further comprises a set of available functions and a set of available values for each available function.

166. The computer system of claim 159,

wherein the meta level further comprises one or more default values for one or more of the available options for the long term care insurance system.

167. The computer system of claim 166,

wherein the product-level details at the description level inherit the one or more default values for the available options defined at the meta level.

168. The computer system of claim 167,

wherein the product-level details at the description level override one or more of the default values inherited from the meta level.

169. The computer system of claim 167,

wherein the policy-level details at the production level inherit the one or more default values from the product-level details defined at the description level.

170. The computer system of claim 169,

wherein the policy-level details at the production level override one or more of the default values inherited from the description level.

171. The computer system of claim 169,

wherein the transaction-level details at the activity level inherit the one or more default values from the policy-level details defined at the production level.

172. The computer system of claim 171,

wherein the transaction-level details at the activity level override one or more of the default values inherited from the production level.

173. A carrier medium comprising program instructions for development of a long term care administration system for a long term care insurance organization through use of a computer system, wherein the program instructions are computer-executable to implement:

defining a meta level for the long term care administration system, wherein the meta level comprises a set of available options for the long term care administration system;

defining a description level for the long term care administration system, wherein the description level comprises product-level details for one or more insurance products offered by the long term care administration system, and wherein the product-level details comprise a selection of the available options defined at the meta level;

defining a production level for the long term care administration system, wherein the production level comprises policy-level details for one or more insurance policies offered under one or more of the insurance products defined at the description level;

defining an activity level for the long term care administration system, wherein the activity level comprises transaction-level details for one or more insurance transactions occurring under one or more of the insurance policies defined at the production level.

174. The carrier medium of claim 173, wherein the program instructions further comprise:

one or more software objects at the meta level, wherein the meta-level objects comprise methods and attributes associated with the available options.

175. The carrier medium of claim 174, wherein the program instructions further comprise:

one or more software objects at the description level, wherein the description-level objects inherit methods and attributes from the meta-level objects.

176. The carrier medium of claim 175, wherein the program instructions further comprise:

one or more software objects at the production level, wherein the production-level objects inherit methods and attributes from the description-level objects.

177. The carrier medium of claim 176, wherein the program instructions further comprise:

one or more software objects at the activity level, wherein the activity-level objects inherit methods and attributes from the production-level objects.

178. The carrier medium of claim 177, wherein the program instructions are further computer-executable to implement:

storing the meta-level objects, description-level objects, production-level objects, and activity-level objects in a memory coupled to the computer system.

179. The carrier medium of claim 173,

wherein the set of available options at the meta level further comprises a set of available functions and a set of available values for each available function.

180. The carrier medium of claim 173,

wherein the meta level further comprises one or more default values for one or more of the available options for the long term care insurance system.

181. The carrier medium of claim 180,

wherein the product-level details at the description level inherit the one or more default values for the available options defined at the meta level.

182. The carrier medium of claim 181,

wherein the product-level details at the description level override one or more of the default values inherited from the meta level.

183. The carrier medium of claim 181,

wherein the policy-level details at the production level inherit the one or more default values from the product-level details defined at the description level.

184. The carrier medium of claim 183,

wherein the policy-level details at the production level override one or more of the default values inherited from the description level.

185. The carrier medium of claim 183,

wherein the transaction-level details at the activity level inherit the one or more default values from the policy-level details defined at the production level.

186. The carrier medium of claim 185,

wherein the transaction-level details at the activity level override one or more of the default values inherited from the production level.

187. A method for development of an insurance administration system for an insurance organization through use of a computer system, the method comprising:

defining a first level for an insurance administration system; and

defining a second level for the insurance administration system, wherein the second level comprises a selection of available options defined in the first level.

188. A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

receiving into a memory a selection of one of a plurality of reusable software components for insurance administration;

receiving into the memory parameters for the selected reusable software component, wherein the parameters relate to administration of insurance.

189. A computer system comprising:

a CPU;

a memory coupled to the CPU, wherein the memory stores program instructions executable by the CPU, and wherein the program instructions are executable to:

receive into the memory a selection for one of a plurality of reusable software components for insurance administration;

receive into the memory parameters for the selected reusable software component, wherein the parameters relate to administration of insurance.

190. A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

specifying a healthcare provider network;

identifying one or more healthcare providers which are authorized to perform healthcare services; and

associating the identified healthcare providers with the healthcare provider network.

191. A computer system comprising:

a CPU;

a memory coupled to the CPU, wherein the memory stores program instructions executable by the CPU, and wherein the program instructions are executable to:

specify a healthcare provider network;

identify one or more healthcare providers which are authorized to perform healthcare services; and

associate the identified healthcare providers with the healthcare provider network.

192. A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

specifying any restrictions of coverage relating to the benefit offered by an insurance organization;

specifying one or more authorized services for which the insurance organization will pay;

specifying one or more authorized service providers whom the insurance organization will pay; and

specifying one or more authorized settings in which the services are performed.

193. A computer system comprising:

a CPU;

a memory coupled to the CPU, wherein the memory stores program instructions executable by the CPU, and wherein the program instructions are executable to:

specify any restrictions of coverage relating to the benefit offered by an insurance organization;

specify one or more authorized services for which the insurance organization will pay;

specify one or more authorized service providers whom the insurance organization will pay; and

specify one or more authorized settings in which the services are performed.

194. A carrier medium comprising program instructions, wherein the program instructions are computer-executable to implement:

defining a first level for an insurance administration system; and

defining a second level for the insurance administration system, wherein the second level comprises a selection of available options defined in the first level.

195. A computer system comprising:

a CPU;

a memory coupled to the CPU, wherein the memory stores program instructions executable by the CPU, and wherein the program instructions are executable to:

define a first level for an insurance administration system; and

define a second level for the insurance administration system, wherein the second level comprises a selection of available options defined in the first level.

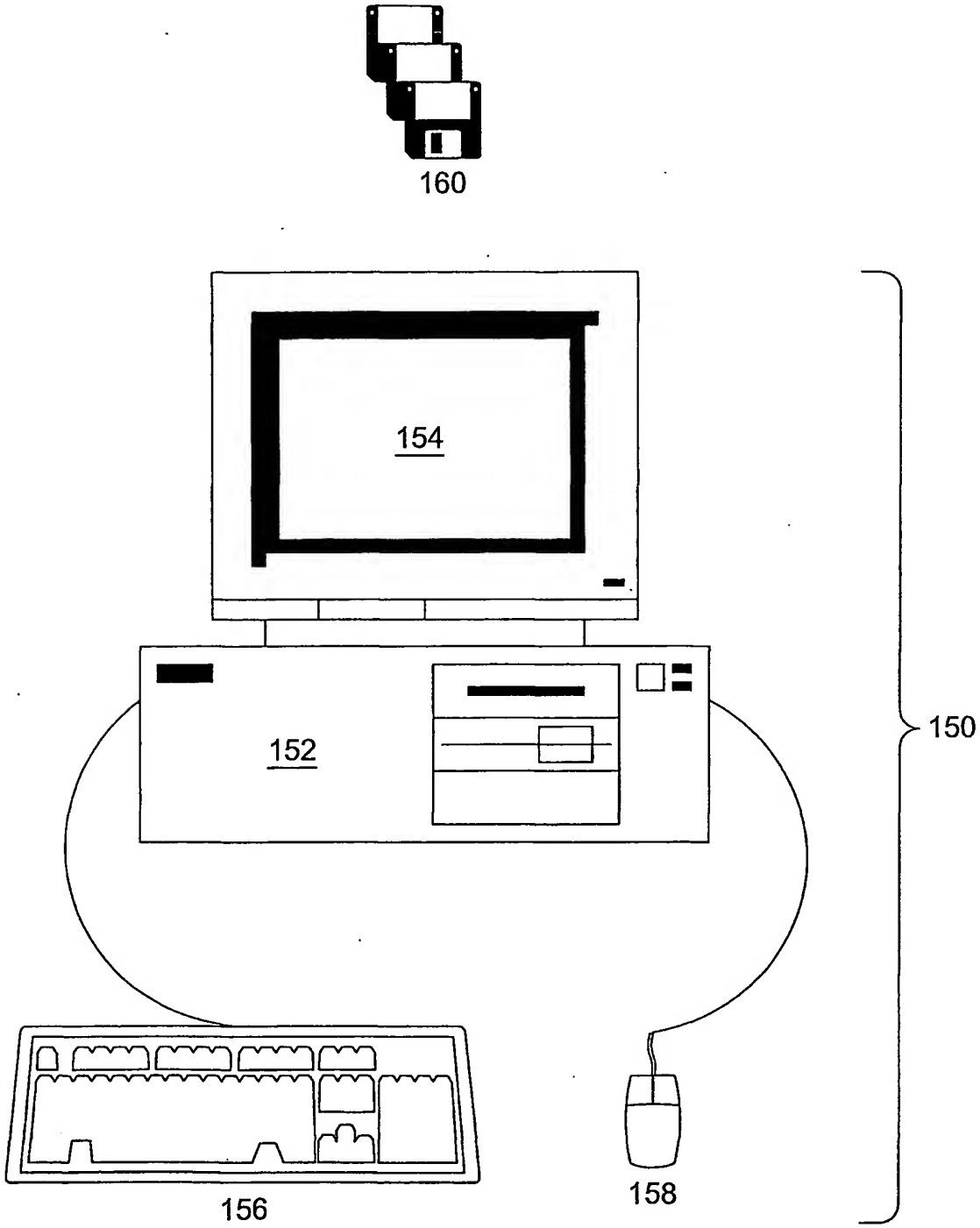

FIG. 1

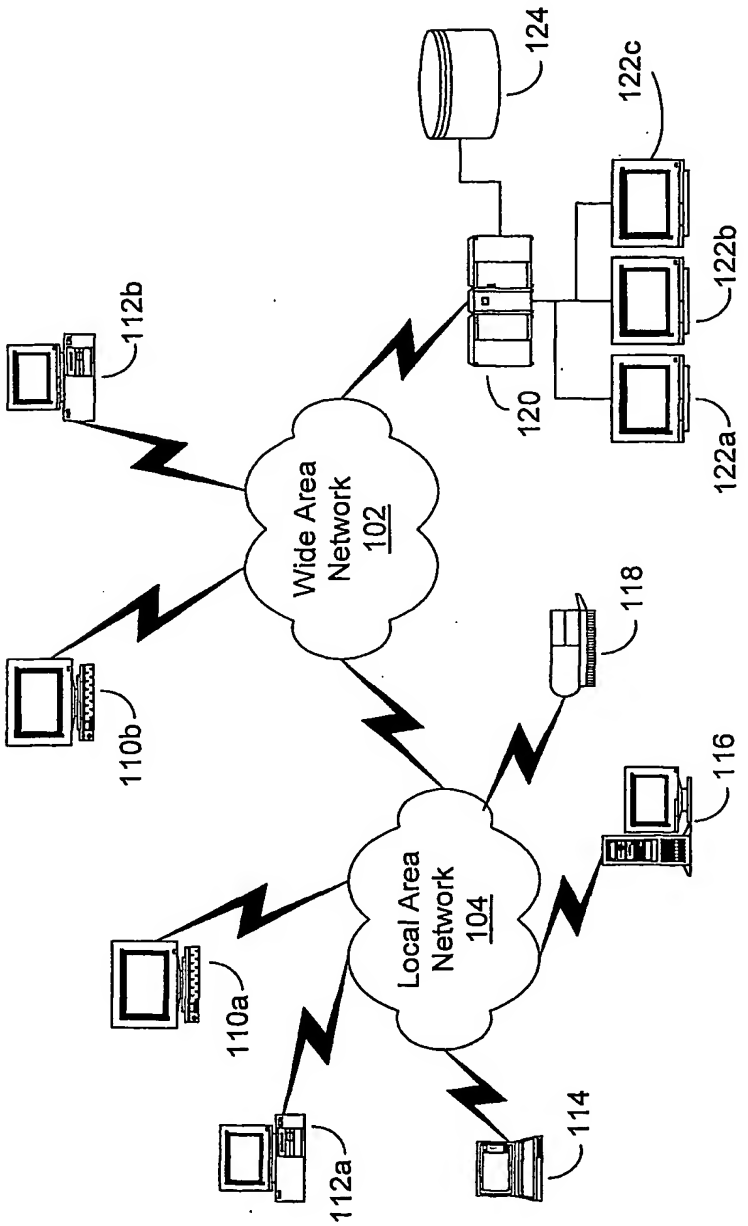

FIG. 2

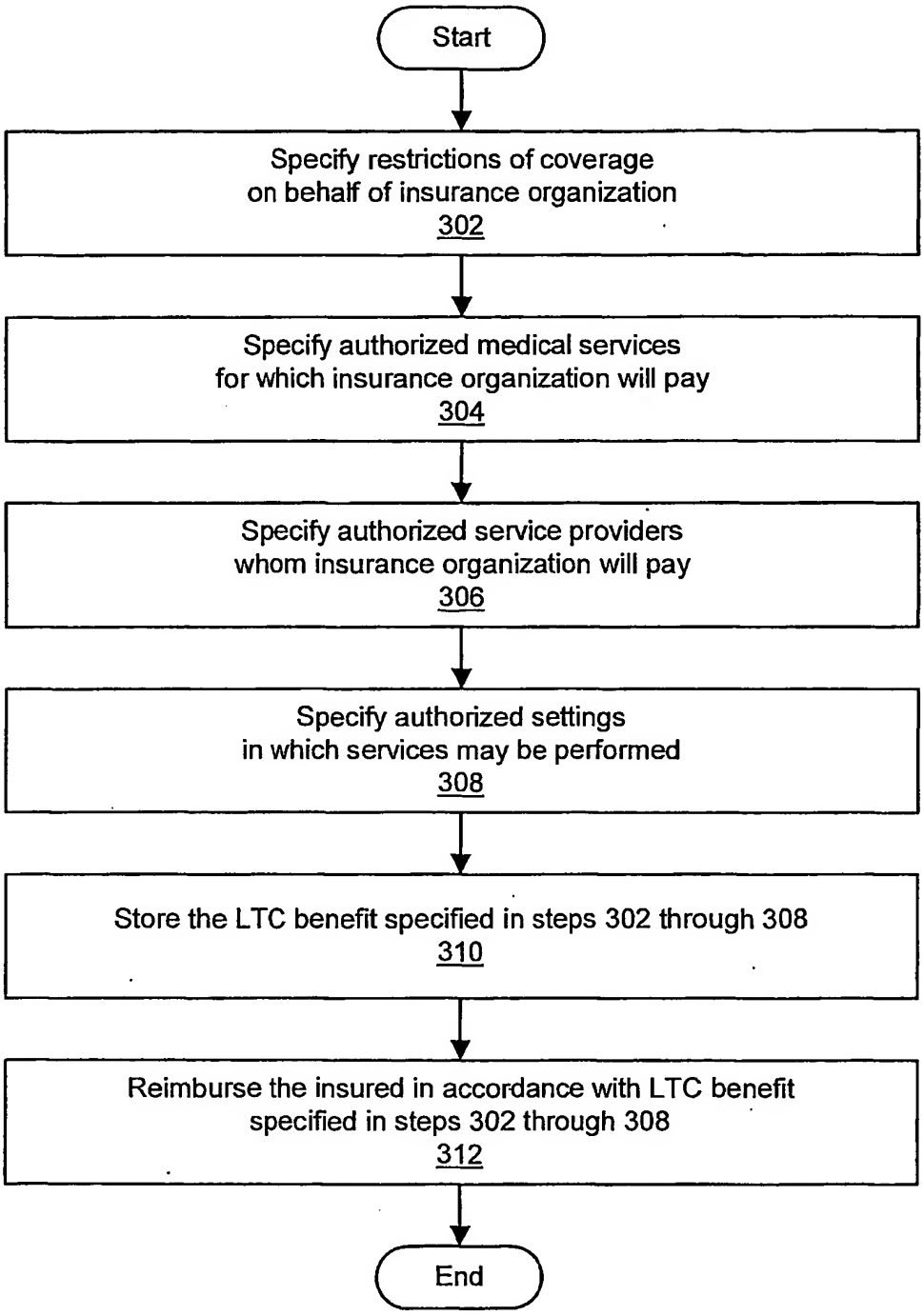
Start
Specify restrictions of coverage on behalf of insurance organization 302
Specify authorized medical services for which insurance organization will pay 304
Specify authorized service providers whom insurance organization will pay 306
Specify authorized settings in which services may be performed 308
Store the LTC benefit specified in steps 302 through 308 310
Reimburse the insured in accordance with LTC benefit specified in steps 302 through 308 312
End

FIG. 3

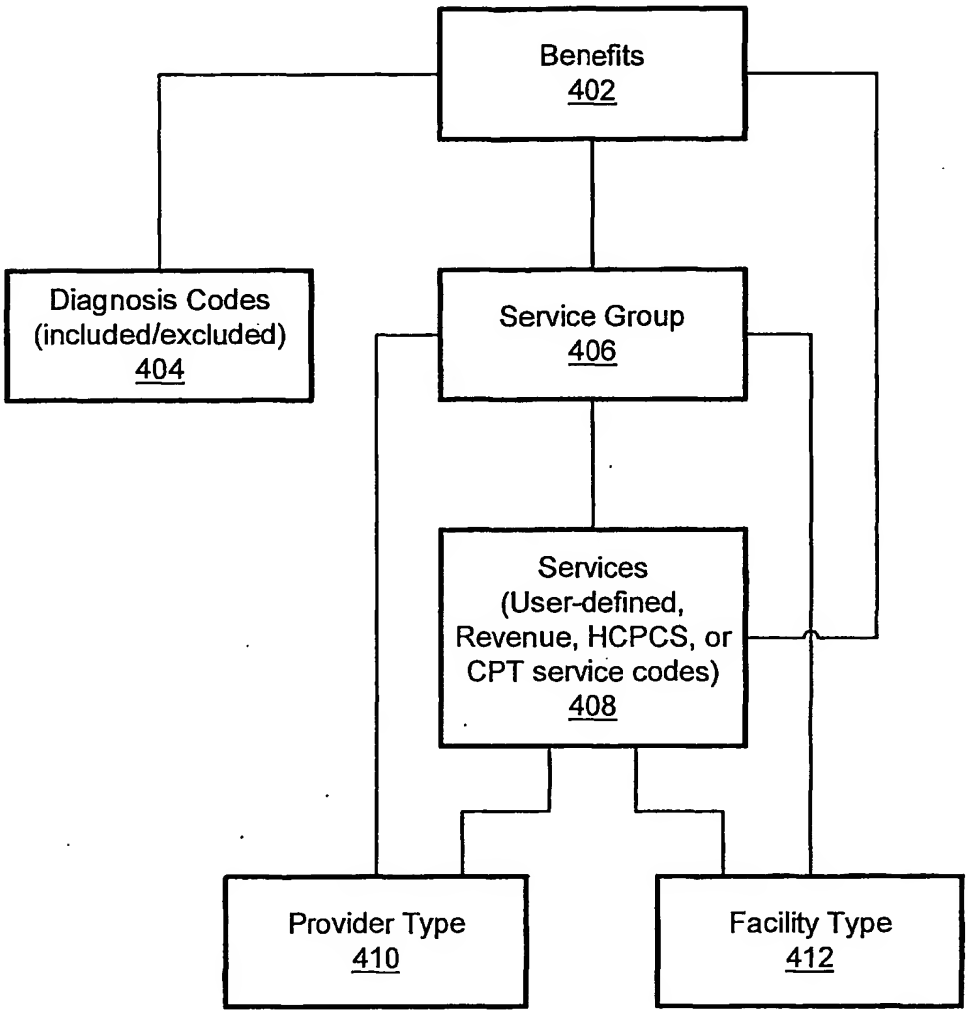
Benefits
402
Diagnosis Codes
(included/excluded)
404
Service Group
406
Services
(User-defined,
Revenue, HCPCS, or
CPT service codes)
408
Provider Type
410
Facility Type
412

FIG. 4

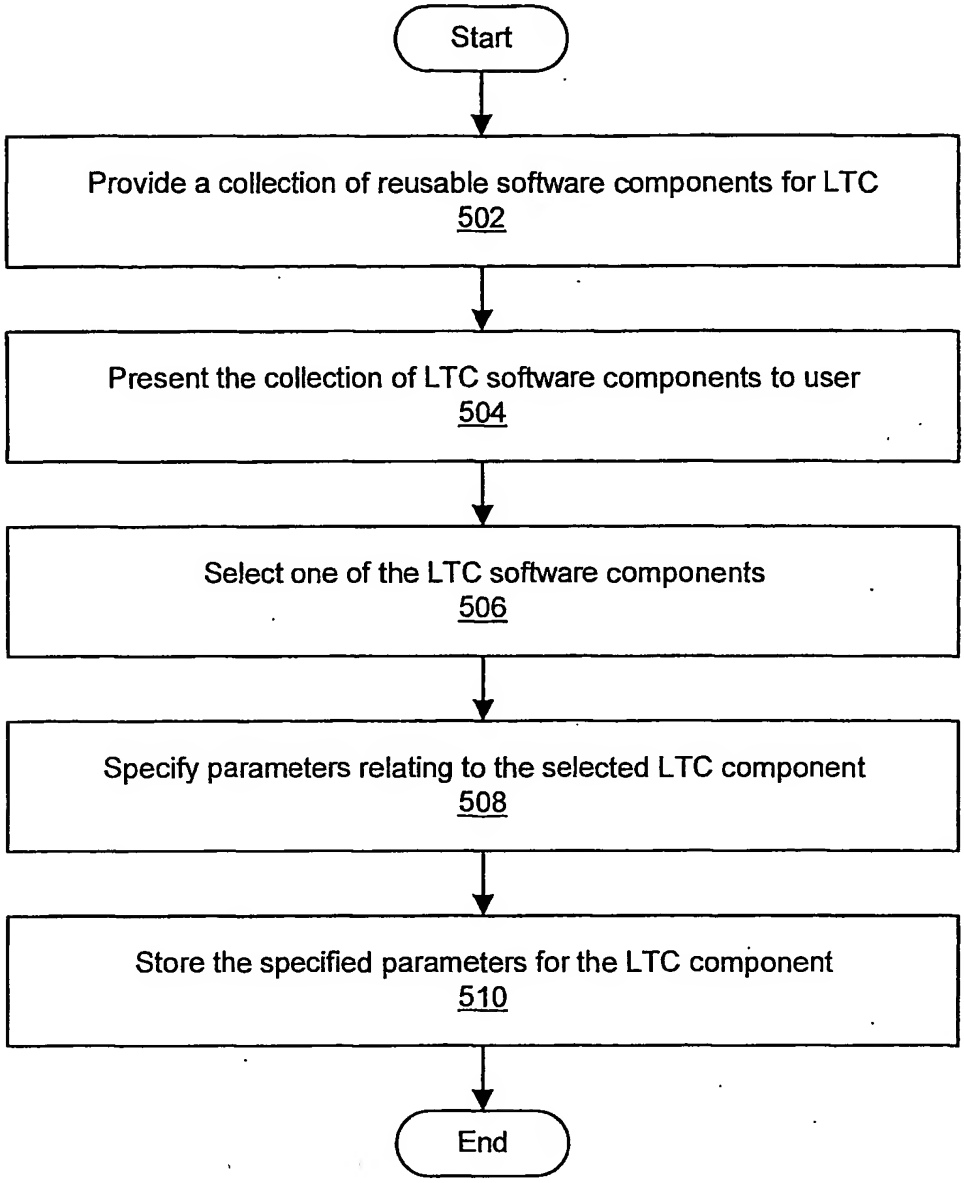
Start
Provide a collection of reusable software components for LTC
502
Present the collection of LTC software components to user
504
Select one of the LTC software components
506
Specify parameters relating to the selected LTC component
508
Store the specified parameters for the LTC component
510
End

FIG. 5

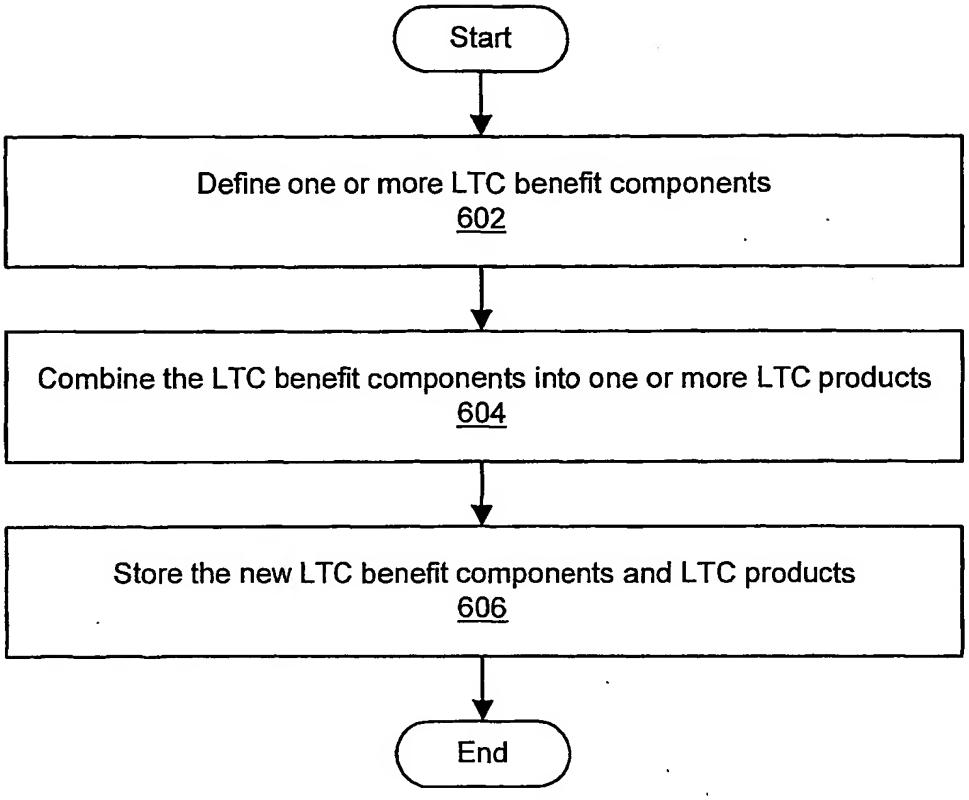
Start
Define one or more LTC benefit components
602
Combine the LTC benefit components into one or more LTC products
604
Store the new LTC benefit components and LTC products
606
End

FIG. 6

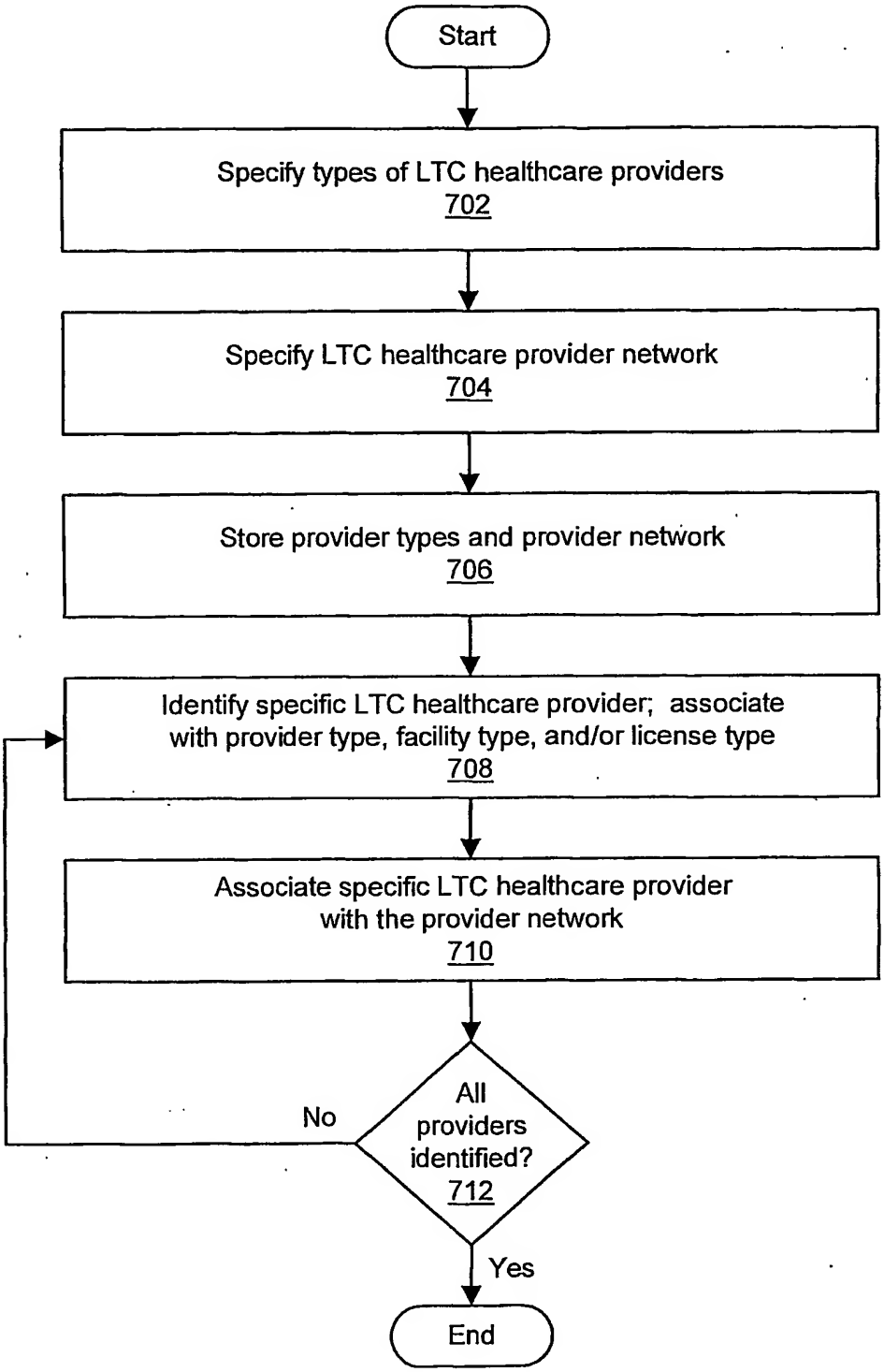

FIG. 7

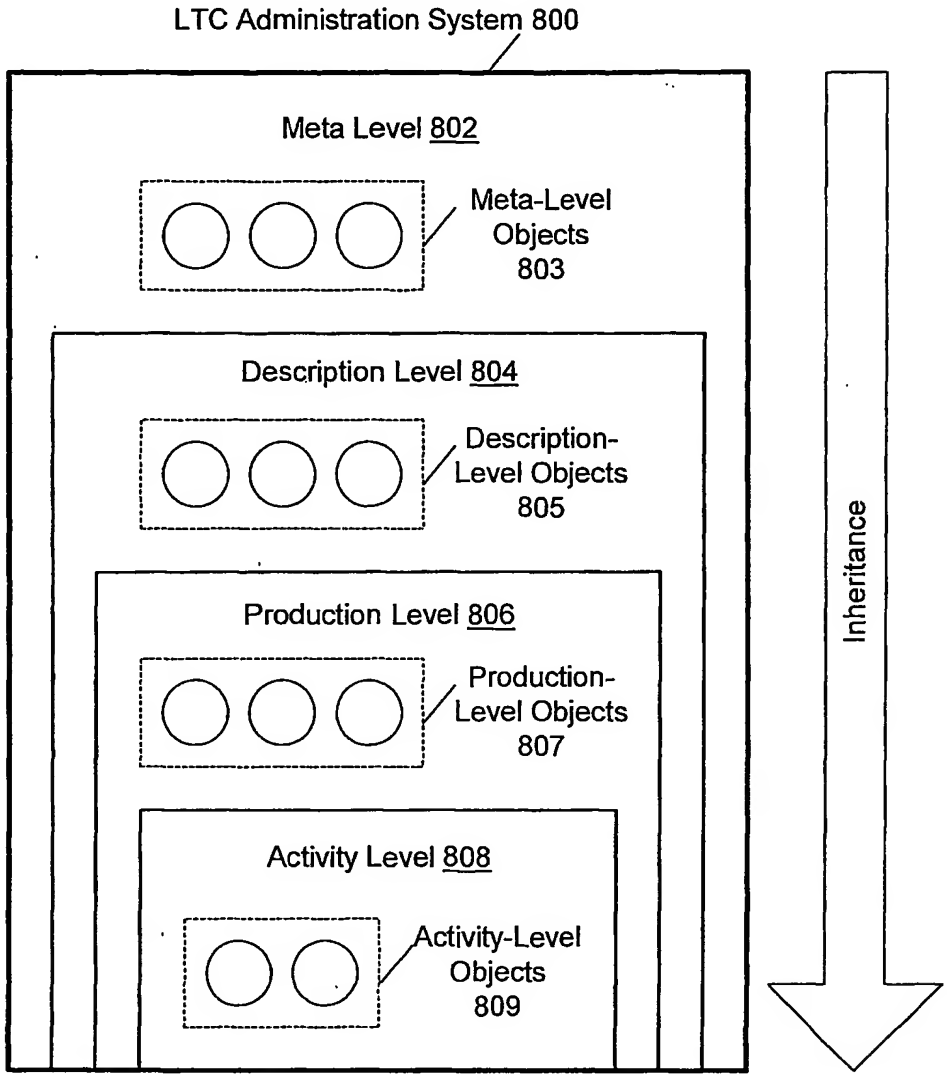
LTC Administration System 800
Meta Level 802
Meta-Level Objects 803
Description Level 804
Description-Level Objects 805
Production Level 806
Production-Level Objects 807
Activity Level 808
Activity-Level Objects 809
Inheritance

FIG. 8

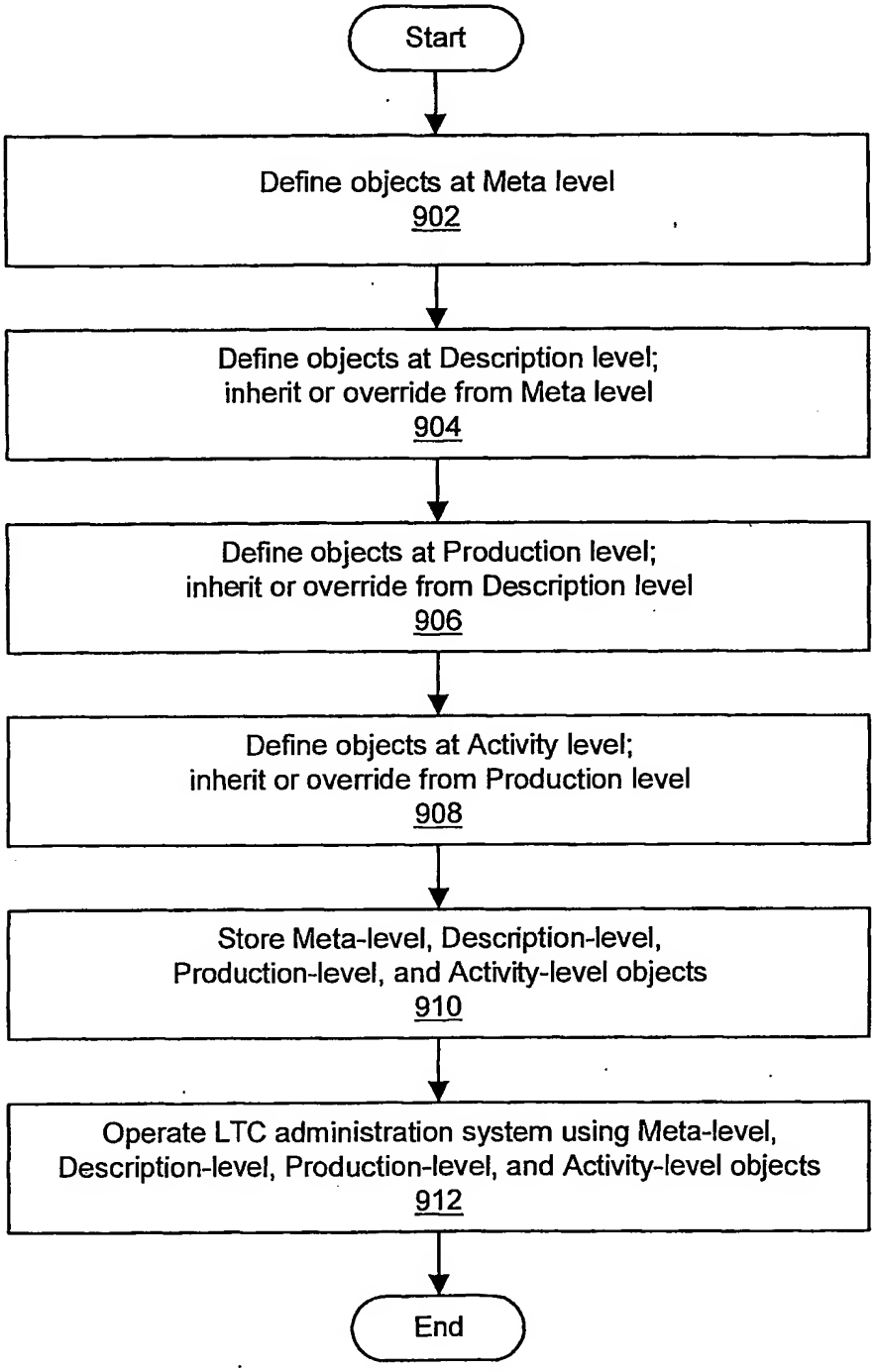
Start
Define objects at Meta level
902
Define objects at Description level;
inherit or override from Meta level
904
Define objects at Production level;
inherit or override from Description level
906
Define objects at Activity level;
inherit or override from Production level
908
Store Meta-level, Description-level,
Production-level, and Activity-level objects
910
Operate LTC administration system using Meta-level,
Description-level, Production-level, and Activity-level objects
912
End

FIG. 9

PATENT COOPERATION TREATY

PCT

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference	IMPORTANT DECLARATION	Date of mailing *(day/month/year)*
5053-28601		19/06/2001
International application No.	International filing date *(day/month/year)*	(Earliest) Priority date *(day/month/year)*
PCT/US 01/08566	16/03/2001	16/03/2000
International Patent Classification (IPC) or both national classification and IPC	G06F17/60	
Applicant		
COMPUTER SCIENCES CORPORATION		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below

1. [X] The subject matter of the international application relates to:
   - a. [ ] scientific theories.
   - b. [ ] mathematical theories
   - c. [ ] plant varieties.
   - d. [ ] animal varieties.
   - e. [ ] essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.
   - f. [X] schemes, rules or methods of doing business.
   - g. [ ] schemes, rules or methods of performing purely mental acts.
   - h. [ ] schemes, rules or methods of playing games.
   - i. [ ] methods for treatment of the human body by surgery or therapy.
   - j. [ ] methods for treatment of the animal body by surgery or therapy.
   - k. [ ] diagnostic methods practised on the human or animal body.
   - l. [ ] mere presentations of information.
   - m. [ ] computer programs for which this International Searching Authority is not equipped to search prior art.

2. [ ] The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:
   - [ ] the description
   - [ ] the claims
   - [ ] the drawings

3. [ ] The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:
   - [ ] the written form has not been furnished or does not comply with the standard.
   - [ ] the computer readable form has not been furnished or does not comply with the standard.

4. Further comments:

Name and mailing address of the International Searching Authority	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Mar'a Rodr'guez Nõvoa

Form PCT/ISA/203 (July 1998)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

The subject-matter claimed in claims 1-10, 23-35, 48-63, 94-110, 143-158, 187 falls under the provisions of Article 17(2)(a)(i) and Rule 39.1(iii), PCT, such subject-matter relating to a method of doing business.

Claims 11-22, 36-47, 64-93, 111-142, 159-186, 188-195 relate to a conventional system for performing the business method of claims 1-10, 23-35, 48-63, 94-110, 143-158, 187. Although these claims do not literally belong to the method category, they essentially claim protection for the same commercial effect as the method claims. The International Searching Authority considers that searching this subject-matter would serve no useful purpose. It is not at present apparent how the subject-matter of the present claims may be considered defensible in any subsequent examination phase in front of the EPO as International Preliminary Examining Authority with regard to the provisions of Article 33(1) PCT (novelty, inventive step); see also Guidelines B-VII, 1-6).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.